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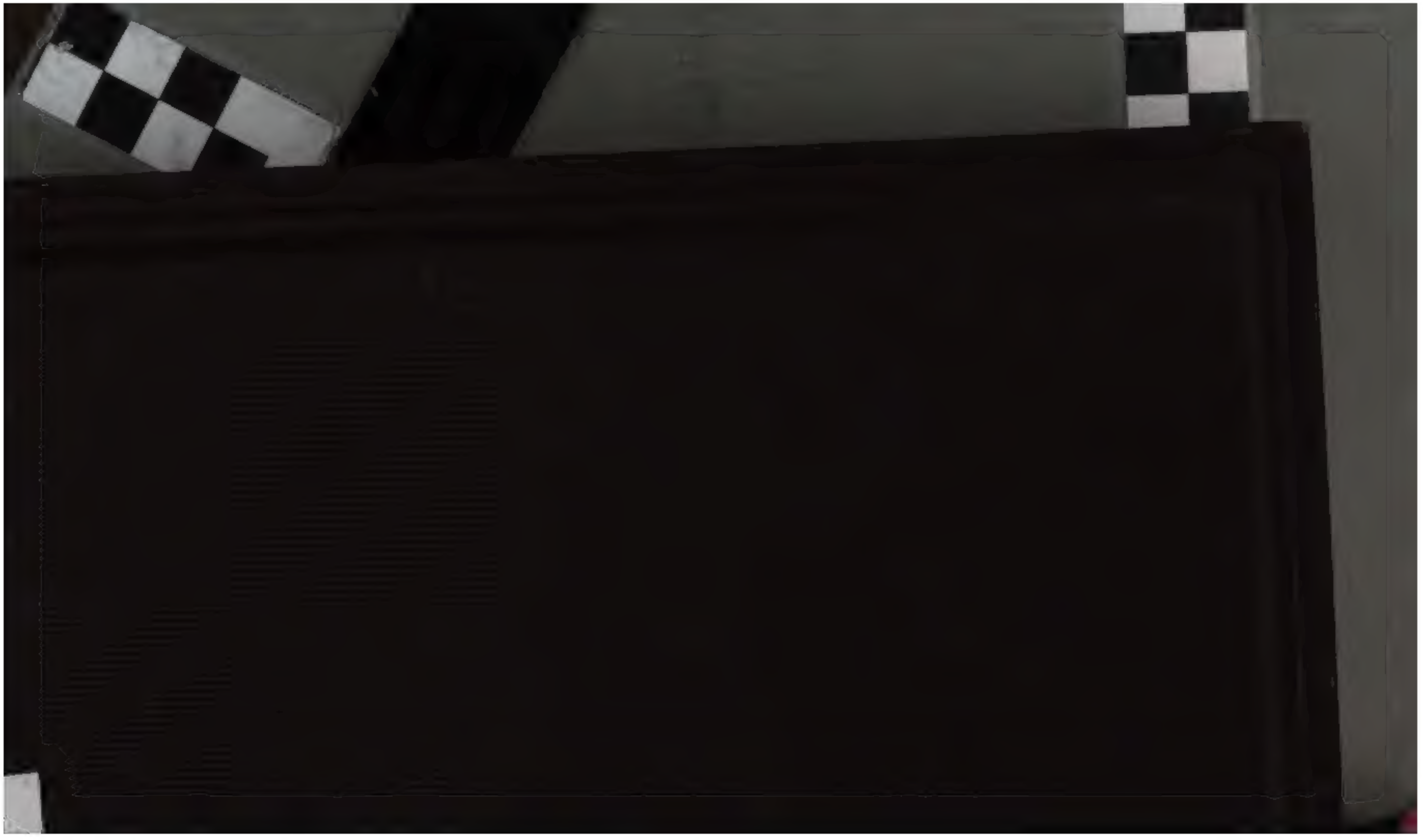

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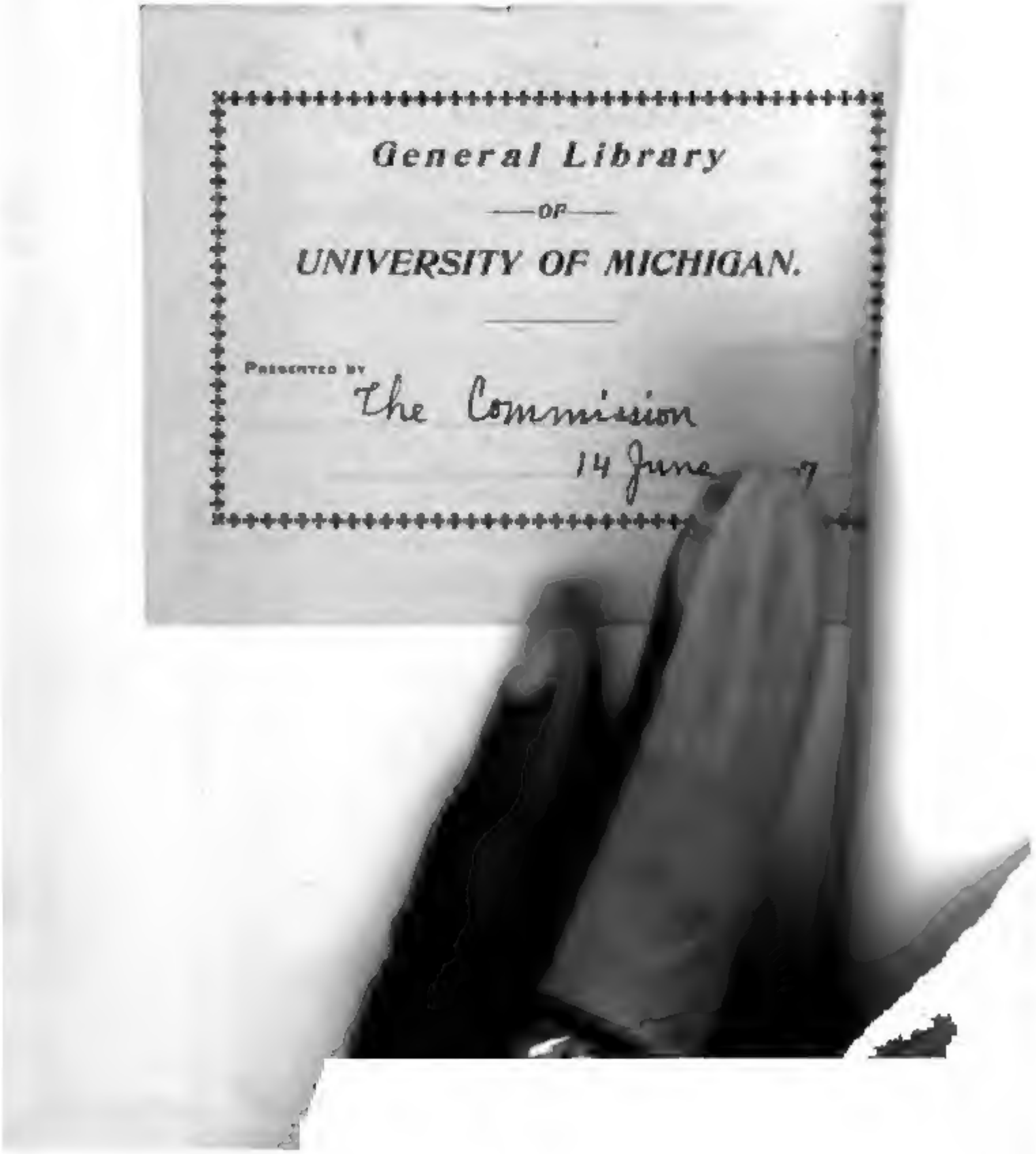

UNITED STATES COMMISSION ON BOUNDARY BETWEEN VENEZUELA AND BRITISH GUIANA

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REPORT

AND

ACCOMPANYING PAPERS

OF THE

COMMISSION APPOINTED BY THE PRESIDENT OF THE UNITED STATES "TO INVESTIGATE AND REPORT UPON THE TRUE DIVISIONAL LINE BETWEEN THE REPUBLIC OF VENEZUELA AND BRITISH GUIANA"

Volume 3

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REPORT

UPON THE

CARTOGRAPHICAL TESTIMONY OF GEOGRAPHERS

BY

SEVERO MALLET-PREVOST

REPORT UPON THE CARTOGRAPHICAL TESTIMONY OF GEOGRAPHERS.

By SEVERO MALLET-PREVOST.

WASHINGTON, *October 10, 1896.*

To the Commission appointed "To investigate and report upon the true divisional line between the Republic of Venezuela and British Guiana":

SIRS: In accordance with your instructions, I have the honor to submit the following report upon the cartographical testimony of geographers.

INTRODUCTION.

The maps which furnish this evidence form a class by themselves: it is therefore important, at the outset, to define clearly what kind of maps are to be examined, and what exactly is to be the scope of that examination.

As evidence of boundary, maps in general may be divided into two classes, or considered from two standpoints.

1. Some maps have a special significance quite distinct from that which may attach to

them when considered as merely expressing the personal views of their authors: they are maps which bear some special relation to treaties; or which have been made the subject of comment by Governments in their diplomatic correspondence or State papers; or which have, in some measure, obtained the official sanction of interested Authorities. This class of maps will be made the subject of a separate paper by Professor George L. Burr.

2. On the other hand, maps perform the function of pictorially expressing the views of the particular geographers or map makers who may have been instrumental in bringing about their publication. They furnish us, therefore, with the opinions of a particular class of experts; and the value of this kind of testimony depends largely upon the special circumstances of each case.

This cartographical testimony of geographers is what I shall endeavor to analyze and to classify: and it may be well to point out that in doing this I in no way review the ground already so carefully gone over by Dr. Justin Winsor in his report of March 4th, 1896. In that report Dr. Winsor has presented the results of a general survey of the whole field: he has not attempted to classify the various boundary

lines; nor to trace their genealogy; nor to ascertain their meaning. This, therefore, is the task which I shall endeavor to perform. It is a task which involves the interpretation of maps, and which seeks to read therein the thoughts and intentions of their authors. If it be suggested that, on this account, the results of such work must always involve an element of doubt, and that they partake to some extent of the nature of speculation, it may with justice be answered that, as the witnesses are no longer here, the written testimony which they have left behind them must be assumed to express their thoughts while living. If, in isolated instances, the analysis of that testimony shall warrant our imputing to certain map makers a greater clearness of insight and a greater definiteness of intention than they really possessed when they drew their maps, that fact will hardly avail to shake the validity of the general conclusions to which the examination *as a whole* may point. The human mind often works in unconscious obedience to motives which, though but feebly apprehended at the time, are yet potent to determine a particular line of action. Geographers are not free from the operation of this rule; and if a subsequent study of their work shall at times disclose their intentions with a

clearness of which they were themselves possibly not fully conscious, the fact remains that, consciously or unconsciously, their work was shaped by those intentions, and that we are warranted in basing our conclusions upon that assumption.

A further word by way of introduction:

All the maps of the region in dispute between British Guiana and Venezuela have been made with an imperfect, and generally very defective, knowledge of the country. They are therefore replete with errors; and it is hardly to be expected that any of them should present boundary lines which will commend themselves to the unqualified approval of the Commission.

Not on this account, however, should these maps be disregarded in the present controversy. A critical examination will certainly disclose therein errors of fact and errors of judgment; but those very errors, especially in cases where they may be found to be general in the maps of a particular period, serve to illustrate the beliefs of the world at that period; and thus throw light upon the meaning of contemporaneous treaties.

Furthermore, such an examination will also be found to disclose the causes which have led

to the adoption by geographers of the boundary lines appearing on their respective maps; and consequently will throw light upon the meaning of those lines.

The first glance at the hundreds of maps which have been brought to the attention of the Commission gives the impression that almost every imaginable line between the Orinoco and the Essequibo, and even to the west and east of those streams, has, at some time or other, been drawn. A more careful examination, however, leads one to see that the difference between these lines is, in many cases, more apparent than real; and that two lines which are in fact drawn according to the same principle differ mainly because the geography of their maps differs. This discovery reduces very considerably the number of really distinct lines. When, finally, it is ascertained that the vast majority of map makers are mere copyists, faithfully reproducing the accuracies and inaccuracies of their respective prototypes; and that the number of those whose work shows independent and original thought is small, a further and important reduction is effected in the number of lines to be analyzed.

All maps of that region which lies between the Amazon and the Orinoco group themselves under a few heads. The groups thus formed

stand more or less closely related to each other, show oftentimes signs of growth one from the other, and present a series whose evolution is not without significance.

To study this series in its logical sequence it will be necessary to limit the present discussion to the work of those geographers who, instead of mechanically copying that of their predecessors, give evidence of original thought. The maps of these geographers, for the most part, signalize the first appearance of the various lines which they respectively represent. In a separate appendix will appear a detailed list of all maps examined, accompanied by a statement of their classification.

EARLY MAPS.

The earliest maps of South America, published during the sixteenth century, give little information which can be of use in the present inquiry. What they do disclose is that at that time Spain and Portugal were the only European Powers in South America; and that in those early days, excepting the dividing meridian of Pope Alexander VI, and its modifications, geographers made no attempt to draw any boundaries whatever. The names used to designate the various regions either indicated the

political supremacy of Spain or Portugal, or else they were devoid altogether of political significance. "*Castilla del Oro*"* is an example of the former; "*Terra Sanctæ Crucis*," "*Terra Incognita*," "*Terra Firma*," "*Paria*," "*Caribana*," are examples of the latter.

MERCATOR, in **1538**, used four names to designate the various parts of the continent. To the northern portion he gave the name of "*Parias;*" to the region below the equator the name of "*Aruaccas.*" The part south of this is called "*Bresilia*"; while the southern extremity he named "*Gigantū regio.*" In one of the maps of a Ptolemy atlas of 1540 we find the northern coast of South America covered by the following legend: "*Parias abundat auro et margaritis.*" **Atlas, map 16.**

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*The geography of Claude Ptolemy, Venice, 1548, has the words *Castilla del oro—i. e.*, Golden Castile—covering South America north of the equator. This occurs on two maps. This designation, in various forms, such as Castilia del oro, Castilla de oro, Aurea Chersonesus, etc., appears upon the following maps of the sixteenth century, and perhaps upon others also:

Ptolemy, Venice, 1548.
Hieronymus de Girava, Milan, 1556.
Ptolemy, Venice, 1561.
Honterus, Basle, 1561.
Forlani, Verona, 1566.
Porcacchi, Venice, 1572.
Myritius, Ingolstadt, 1590.
Cornelis de Judæis, Antwerp, 1593.
Wytfliet, Lovanii, 1597.

Perhaps the *first* use of the name is due to **PETER MARTYR**, who on a map dated 1534 uses the words *Castiglia nuova over l'err.* (*See* Nordenskjold's facsimile atlas, plates 45, 48, 49, 51, and pp. 119, 126, 127.) **Atlas, map 18.**

Atlas, map 17. In **1566 ORONTIUS FINÆUS** designated the same region by the single word "*Canibales.*" In

Atlas, map 18. **1534 PETER MARTYR** placed the name "*Paria,*" in small type, directly west of the Orinoco; and left Terra Firma, as a whole, without any

Atlas, map 19. designation whatever. In **1587** the same geographer used the two words "*Caribana*" and "*Paria*" to designate all the region north of the Amazon; placing "*Caribana*" on the west, and "*Paria*" on the east.

Atlas, map 20. **ORTELIUS** in **1572** gave the name "*Caribana*" to the whole region lying north of the equator; and his example seems to have been largely followed; with the effect that "*Caribana,*" by the close of the sixteenth century, had quite displaced "*Paria.*"

From this it will appear that, in those early days, the names generally used had reference to the native tribes supposed to inhabit the regions designated by them, and carried no political significance of any kind. "*Paria*" first, and then "*Caribana,*" came generally to be employed as names for Terra Firma.

What has been said is important because it explains the meaning of "*Caribana,*" and helps to make clear its significance when used in subsequent maps. At the time of Martyr and Ortelius there was no question as to Spain's supremacy

in Terra Firma. Neither the English nor the Dutch had yet been heard of on those coasts; in fact the latter were not yet in existence as a nation. The names, therefore, which were used were *descriptive* and not *political.* True, some of those names in later years came to acquire political significance by reason of the fact that they came to designate territories occupied by Spaniards or by Portuguese respectively; but it is important to keep in mind the fact that, *in their origin*, they were mere tribal appellations, without political significance of any kind.

Along the "*Wild Coast*" the Caribs were the most warlike of all the savages. They had, on that account, impressed themselves on white men as the dominant tribe. Nothing was therefore more natural than that geographers, acting upon that assumption, should give the name of "*Caribana*" to the whole territory.

In the course of time the extent of the region designated by this name became more restricted. The Spaniards began to effect settlements on the western coast, gradually extending themselves as far east as the Orinoco. Either they drove the Caribs before them; or, what seems more likely, they ascertained that those Caribs were but one of many tribes, and that their actual habitat was beyond the Orinoco, or extended at most but a short distance west of that river.

The cartographical expression of this fact is to be found in the maps of **DE BRY** (1599), **DE LAET** (1630), **BLAEUW** (1635), Hondius (16—), **SPEED** (1626), Gottfried (1631), and others; but, in order to understand the meaning of these maps and the significance of a new designation which they introduce, it is essential to first examine **RALEIGH'S** map of **1595.**

Atlas, maps 22-25.

Atlas, map 21.

That map, for the first time, made familiar the word "*Guiana.*"* The mythical lake of "*Parima*" is placed in the interior of the country: upon its banks is the fabulous city of "*Manoa*": the kingdom of "*El Dorado*" is in the basin of the lake itself: and to the watershed of the lake Raleigh gives the name of "*Guiana.*" This "*Guiana*" was a region in which the world at that time firmly believed, but which neither Raleigh nor any other European had ever seen: it was a mythical land, unexplored, unknown, free from the political control of any European nation.

This new factor, as was natural, introduced confusion into the maps of that time. "*Caribana,*"

Atlas, map 76.

* There is in the archives at Seville a map of the Amazon, Essequibo, and Orinoco rivers, published for the first time in 1877 by the Spanish Government in "*Cartas de Indias,*" in which the name "*Guayana*" appears. The date of this map is not given; but the latest date upon its face is 1554, and the map itself was probably prepared not much later.

the unexplored "*home of the Caribs*," had been pushed to the east of the Orinoco: "*Guiana*," the equally unexplored "*land of gold*," had arisen to contest its supremacy in that region.

Hondius, **SPEED**, Gottfried, and their followers settled on a compromise. They gave the name of "*Caribana*" to the coast, where the presence of the warlike Caribs was experienced by the occasional explorer; and they gave the name of "*Guiana*" to that interior kingdom of El Dorado which they inclosed in fanciful boundaries, and which they separated both from "*Caribana*" and from the Orinoco. Atlas, map 22.

DE BRY, DE LAET, BLAEUW, and their followers on the other hand, discarded altogether the tribal appellation of "*Caribana*"; and, for want of a better, gave to the whole region, including both the coast and the realm of "*El Dorado*," the single name of "*Guiana.*" Atlas, maps 23-28.

The important fact to be observed with regard to all these maps is that, however they may disagree as to the use of "*Guiana*" or "*Caribana*," they all agree in using one or the other, or both, to designate that region lying between the Orinoco, the ocean and the Amazon.* One of these names had, from the

* Blaeuw's special maps of "*Guiana*" disclose no intention on his part to show any portion of that region as either Spanish or Dutch. In some of his maps of that portion of Terra Firma

beginning, been used to indicate the "*home of the Caribs*"; the other, the location of the fabled "*El Dorado.*" Neither had ever been used to indicate Spanish, Dutch, Portuguese, or English jurisdiction. The use of these names, therefore, raises, at the outset, a presumption in favor of the theory that the earliest geographers looked upon the land to which these names were applied as regions still to be conquered. In other words, the maps of Martyr, Raleigh, Hondius, Speed, Gottfried, De Bry, De Laet, Blaeuw, and of their contemporaries and immediate successors, do not give "*Guiana*," nor "*Caribana*," nor any definite portion of either of these, as Dutch territory: they give it as a great unknown country, touched here and there along its borders, it may be, by the vanguard of exploration; but, for all that, still unknown, unpenetrated, vague, and—save by fancy—unbounded.

But this conclusion does not rest alone upon the use of these names "*Caribana*" and "*Guiana.*"

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which lies west of the Orinoco the legend "Nueva Andalusia" is carried across the Orinoco. While this may, and probably does, show that Blaeuw looked upon a portion, at least, of Guiana as Spanish, it does not prove that he looked upon the remainder as Dutch. This point will be discussed later. For the present it is merely desired to emphasize the fact that the carrying of the name "*Nueva Andalusia*" across the Orinoco in no way contradicts what has been said respecting the neutral character of the names "*Guiana*" and "*Caribana.*"

The theory which the use of these names establishes as a *presumption* is raised to the category of *assurance* by a comparison of the various copies of Blaeuw's map reproduced in the accompanying atlas.

Atlas, maps 25-28.

Prior to **BLAEUW**, the geographers who had designated the whole region between the Orinoco, the ocean, and the Amazon either as "*Guiana*" or "*Caribana*," were De Bry in 1599, Hulsius in 1599, Hondius in 1613, Speed in 1626, De Laet in 1625, and Gottfried in 1631. None of these gave boundaries of any kind, save such as inclosed "*Guiana*," and served to separate it from "*Caribana*" on the coast and from the Orinoco on the west.

BLAEUW'S map is a mere copy of De Laet's. As first published in **1635**, it shows no boundaries whatever.* A later edition of **1667** likewise fails to show boundaries. The copy in the Blue Book is given as of **1640**, and shows painted boundaries. One of these painted boundaries runs from the Orinoco to the Ama-

Atlas, map 25.

Atlas, map 26.

Atlas, map 27.

* Like many maps of that time, Blaeuw's maps are often highly ornamented. The work of illumination is done by hand, and varies according to the whim of the artist. Various tints are used around borders, around lakes, and over mountain chains; but a careful comparison of different copies of the same map shows that these tints vary, and that they have neither political nor geographical significance.

zon, about parallel to the coast, and three hundred to four hundred miles inland; south of it is Lake "*Parima;*" on the shore of the lake is the city of "*Manoa*" or "*El Dorado.*" The region thus marked off to the south has no special designation, but it seems reasonably certain that whoever drew the boundary line intended thereby to show the limits of the fabulous country of El Dorado. The region lying north of this boundary line reaches the coast; and, with the exception of two comparatively small tracts, embraces all the territory between the Amazon and the Orinoco. The excepted tracts both lie on the Orinoco, one extending from the head of the delta southwest to a point a short distance north of St. Thomas, and the other extending from a point south of St. Thomas, about 125 miles upstream.

Neither tract seems to be bounded by any natural features: the painted lines which limit them do not appear to be based upon any recognizable principles.

On the margin of this Blaeuw map of 1640 the compilers of the Blue Book have given the following as their interpretation of the painted boundaries: "*The yellow colour is understood to indicate the Dutch boundary.*"

It should be noted, in the first place, that the

map itself is entitled "*Guiana Sive Amazonum Regio*," and that this discloses no intention on the part of Blaeuw to make it a map of Dutch territory.

In the second place, St. Thomas, which was always indisputably Spanish, is shown as situated *within* this supposed Dutch territory.

In the third place, in the whole extent of territory, from the Orinoco to the Amazon, this supposed map of Dutch colonial possessions fails to mention a single Dutch town, settlement, or fortress. If we except the Indian town of *Macurewarai* and the fabulous *Manoa o' el Dorado*, at least four hundred and fifty miles intervene between St. Thomas and the first settlement on the east. The River Curetyni (Corentin) furnishes the first evidence of human habitation in that direction: yet, if the two villages there shown were in fact Dutch, Blaeuw, *in what is alleged to be a special map of Dutch settlements*, fails to even give them a name. In the same way, other towns or villages are shown at various points along the coast, from the Corentin to the Amazon; yet Blaeuw fails to give them any but Indian names. It has also been claimed that in the year 1640 (the date assigned to this particular copy of Blaeuw) Dutch settlements had already been established on the Essequibo

and perhaps on the Pomeroon. If this be so, and if Blaeuw, himself a Dutchman, had been engaged in making a map intended to show the bounds or extent of Dutch colonial possessions, is it conceivable that he should have given the location and names of the *bordering* Spanish towns, and that he should have entirely omitted to give either the location or the name of a single Dutch settlement *within* the supposed Dutch territory?

In the fourth place, other copies of Blaeuw, one at **HARVARD LIBRARY**, in Cambridge, and another in the library of the **UNITED STATES GEOLOGICAL SURVEY**, in Washington, have painted boundaries quite different from those appearing in the Blue Book copy—boundaries which closely resemble those first shown by Sanson in 1650, and which we shall consider later.*

Atlas, map 25.

Atlas, map 28.

Finally, it is well known that, between the date of the first and last publication of Blaeuw's maps, the Dutch were by no means the sole

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*All of Blaeuw's maps of Guiana which have been brought to the attention of the writer, excepting only that which, *as a copy*, is reproduced from the British Blue Book, have every appearance of having been printed from the same plate. The colored hand-painted boundaries which some of these contain are therefore subsequent additions; and the variety of these latter points strongly to the conclusion that they are the work of different individuals, and that, whatever their meaning, Blaeuw himself can not be held responsible for them.

possessors of the Guiana coast. The English and the French were constantly sending out expeditions to the Wild Coast, and making settlements there in the same manner as the Dutch. It would therefore seem to be too much to assume that Blaeuw intended to designate the whole of Guiana as Dutch territory.

The examination which we have thus made of the Blaeuw map would seem to place beyond question the fact that it and its contemporaries (none of which show anything different) were absolutely without political significance as regards "*Guiana.*" Their obvious intention was to include under that name all the wild and unknown region between the Orinoco and the Amazon; and they made no attempt to indicate in any way the political subdivisions of which that region might itself be susceptible.

Another important fact brought out by this examination, and which should be steadily kept in mind in the consideration of other maps, is that mere colored boundaries, where the plates themselves show no engraving to correspond, are entitled to but scant consideration, and should be received, if at all, with great caution. Such boundaries can be added at any time by anyone; and the wide divergence which they show is evidence of their untrustworthiness, or of their fanciful character.

De Bry (1599), Hulsius (1599), De Laet (1630), and Blaeuw (1635), in their designation of the whole region between the Orinoco and the Amazon as "*Guiana*," were followed or copied by Janson in 1653, Duval in 1654, Jacobsz in 1654 (?), Pagan in 1661, Ogilby in 1671, Sellor in 1675, Wells in 1698, Van der Aa in 1700, De Fer in 1713, Senex in 1719, Moll in 1720 (?), "The English Pilot" in 1742, 1758, and 1767, R. and J. Ottens in 1745, Coleti in 1770, Blair in 1779, Gilij in 1780, Surville in 1781, Waddington in 1794, and by others.

Hondius, Speed, and Gottfried, in limiting "*Guiana*" to the interior and designating the coast region as "*Caribana*," were followed or copied by Piscator in 1652, Schenk in 1700 (?), and by R. and J. Ottens in their edition of De Witt, about 1720.

THE SANSON LINE.

In **1650** appear the earliest *engraved* boundaries which can be said to indicate the influence of any European Power east of the Orinoco.

Atlas, map 29.

In that year the French geographer, **SANSON**, published a map entitled "*Amerique Meridionale;*" the importance of which lies in the fact that it marks a new departure; and that Robert

de Vaugondy and others, a century later, without any correct appreciation of its real significance, mechanically copied and erroneously interpreted its boundary line.

As regards boundaries, and general designation of regions, Sanson was himself a follower of Hondius, Speed, and Gottfried. These mapmakers, it will be remembered, had placed "*Guiana*" in the interior. Sanson did the same; only he prolonged to, and even beyond, the Amazon the line which in the Hondius and Speed maps had formed the southern boundary of "*Guiana*." In the same way, the line which in the earlier maps had served to divide "*Guiana*" from the Orinoco region, he continued north beyond the "*Guiana*" of Hondius and Speed, making it the western boundary of "*Caribana*," pushing that region still farther to the east, and separating it, in part at least, from the Orinoco. In doing this, he merely emphasized a division which Hondius, Speed, and Gottfried had already foreshadowed when they separated "*Guiana*" from the region lying immediately on the Orinoco. What those geographers had probably had in mind was, that "*Guiana*" lay somewhere beyond the Orinoco, a little farther than Europeans had yet penetrated: they had accordingly separated it from regions which

were better known. A careful examination of Sanson's maps warrants the conclusion that he did the same; that is to say, that he separated regions which were known, or under the actual control of Spaniards, from regions which were not as yet effectively explored. And this he did by extending northward the line which, in Hondius' map, separated "*Guiana*" from the Orinoco region. This line he carried along the crest of the mountain chain supposed to divide the upper Orinoco valley from the unknown region to the east; the mountain chain itself, as well as the boundary, he made to terminate on the Orinoco a short distance below the head of the delta.

Atlas, map 30. Six years later (1656) **SANSON** published a special map of this region, entitled "*Partie de Terre Ferme ou sont Guiane et Caribane.*" This second map, as regards its geographical details, was based upon De Laet; and, as a consequence, the mountain chain, which in his earlier map had terminated on the Orinoco *below* the head of the delta, was now made to terminate *above* that head. This change with respect to the position of the *mountains* did not, however, effect a corresponding change in the position of the *boundary line* itself, the northern terminus of which remained *below* the head of the delta. It is

important to ascertain the meaning of this divisional line.

In the map of 1650 the region lying between it and the Orinoco is inclosed, on the one side by a well-defined river, and on the other by an equally well-defined mountain chain. That chain constitutes the divide between the drainage basin of the river (the delta region excepted) and the regions to the east. It is therefore fair to conclude that, whatever other significance the boundary line may have had, it was at least intended to separate this portion of the Orinoco basin from the region to the east of it. This is strictly true of the line shown in the map of 1650. It would be equally true of the line shown in the 1656 map were it not for the fact that, in this later map, owing to the change in the position of the mountain chain, the boundary line, in order to maintain its original termination *below* the head of the delta, is compelled to leave the mountains before they reach the Orinoco and to push beyond them to its former terminus farther downstream.

This persistence of the line in its original position, even at the sacrifice of departing from what constitutes on the map a natural water parting, is significant, and seems to demand explanation.

In 1650 the usual course pursued by the Spaniards in their navigation of the Orinoco was to enter from the side of Trinidad and the Gulf of Paria, and to go up one of the western mouths to the head of the delta, and thence to St. Thomas. The navigation of the "Great Mouth" was dangerous and inconvenient, and what is now known as the *Barima region* was little frequented. This being the case, if Sanson had desired to indicate, by the northern terminus of his line, that particular point of the Orinoco beyond which the Spaniards rarely went, and beyond which no Europeans had established settlements, he would have selected the very spot at which he actually placed it. That this was in fact the purpose of his line at its northern extremity would seem to be the only explanation of the otherwise apparently arbitrary manner in which that line leaves a natural physical barrier and runs to a point which has no apparent importance or significance, except as it marks the spot where navigators were accustomed to turn their barks northwestward in search of safer and more convenient outlets to the sea.

Roggeveen (A). First part of the burning fen, etc., fol. Amsterdam, 1675, p. 6.

It would seem, then, that we have the meaning of Sanson's line at its two extremities. On the north it marked the frontier of civilization:

on the south it separated the *known* Orinoco from the *unknown* El Dorado. Between the two it followed a mountain chain whose meaning is at once apparent, as it separates the valley commanded by St. Thomas from the unexplored regions beyond. The name "*Nueva Andalusia*," brought from across the Orinoco and engraved over this valley, emphasizes its Spanish character; while the names and legends beyond the mountains, and the absence from the map of any indications of European settlements there, show very conclusively that, to Sanson's mind, that region was as yet unexplored. The whole coast in the 1650 map, where the boundary line first appears, is given up to "*Caribes*," "*Capuri*," and "*Harrytiahans*"; no town nor village of any kind is seen; no trace of either Dutch or Spanish influence. In Guiana itself the mythical "*Manoa del Dorado*" reigns supreme over "*Muckikeri*," "*Epuremei*," "*Amapaca*," "*Arwacas*," "*Apehous*," and a single Indian village called "*Macurewarai.*" The Essequibo is indicated only by its mouth; nothing whatever is shown of the Dutch upon its banks.

What must we conclude from this? Clearly, that Sanson intended, when he drew his line, to mark off that territory which the Spaniards had occupied with settlements. Was it also his

intention to fix the limits of Spanish aggression into savage territory, or to define the western Dutch boundary of the Dutch colonies? I think not.

In the first place, if Sanson had had the Dutch in his mind when he made his map, or at least when he made his *special* map of this region in 1656, and if it had been his purpose to give to the world the latest obtainable information respecting Dutch possessions in Guiana, we might not unnaturally look for some trace of this in the title of the map itself. Yet we find that that title makes no reference whatever to the Dutch, but simply informs us that we are looking at "*Guiana and Caribana*," and adds that these form a part of Terra Firma.

In the second place, if Sanson had had in his mind the Treaty of Munster, concluded eight years before; and if it had been his purpose to show the territorial extent of the rights conferred upon or confirmed to the Dutch by that treaty; it is strange that he should have entirely omitted mention of any Dutch settlements on either the Essequibo or the Berbice. These were at that time the extreme western settlements of the Dutch; their location must necessarily, under the treaty, determine the location of the boundary itself; and to suppose that such important

landmarks could be omitted from a map which was to publish that boundary for the first time to the world, would be much like supposing that Hamlet could be omitted from the play which bears his name. But what is still stranger, if Sanson intended to fix Dutch frontiers, is that Kykoveral is not only not mentioned, but that, in its place, this same Sanson actually writes the word "*Arwaccae*," as though no Dutch existed; and between the Orinoco and the Essequibo the only designation is the word "*Caribes*"; indicating that Sanson looked upon this as purely Indian territory. All this forbids the supposition that he had undertaken to ascertain the location of the Dutch settlements or to lay down their boundaries.

A careful examination of Sanson's map fails to disclose a single settlement which can be recognized as distinctively Dutch. His 1650 map gives no towns whatever, not even Indian, excepting "*Macarewarai*," and the mythical "*Manoa del Dorado.*" In his 1656 map no settlements are shown on either the Essequibo or the Berbice: on the Corentyn and its tributaries are seven towns, all with Indian names: and on the Surinam River there is a town called *Noyeve.*

As a third and final reason for refusing to

look upon Sanson's line as a *western* Dutch boundary, is the fact that he makes no attempt to fix any Dutch boundary on the *east*. There was as much reason for his fixing the one as for his fixing the other: there was every reason why he should not attempt to fix either. Too little was known at that time about the geography of the country to make any intelligent division possible. These considerations, taken in connection with what has already been pointed out as to the purpose of at least a portion of the north and south boundary line, lead to the conclusion that this line was drawn without any thought of the Dutch and without any intention to fix a line of right. It was not a political line, in any sense; but was merely intended to separate *Nueva Andalusia* from that region which, to Sanson at least, continued to be "*Caribana*," and all which that name implied.

An examination of Sanson's maps having brought us to this conclusion, it may not be amiss to go beyond the maps themselves and to search for further light in Sanson's written works. Does he therein support or contradict the interpretation thus placed upon his maps? I translate the following from his *L'Amerique en plusieurs cartes, etc.*," published in Paris about 1656, pages 69–73:

"In my geographical tables I have divided this South America into Peruviana and Brasiliana; subdividing Peruviana into Terra Firma and Peru; and Brasiliana into Brasil and Paraguay; the first division is made by a line which runs from the mouths of the Amazon to the southern extremity of Chili and this line divides South America into two equal parts, the one belonging almost exclusively to the Spaniards and the other for the most part to the Portuguese.

* * * * *

"Terra Firma may also be divided into Terra Firma and Guiana.

* * * * *

"The Spaniards possess almost all Terra Firma, nothing at all in Guiana.

* * * * *

"Under the general name of Terra Firma we include that part of South America lying most toward the north and which is connected with North America by the Isthmus of Panama.

"It extends from the Isthmus of Panama to the mouth of the Amazon, nearly a thousand leagues. Its breadth between the North Sea and the states which lie along the Amazon is not more than 200 or 250 leagues or a little more. This breadth being but a quarter of the length is our reason for dividing this *Terra Firma* into two parts of which the westernmost and the larger belongs for the most part to His Catholic Majesty and retains the name of Terra Firma, and the easternmost which is the smaller is nearly all in the hands of the natives, some Europeans having established settlements on the coast and this may be called 'Guiana.'"

Thus does Sanson summarily dispose of any question as to the Dutch character of his line.

I have gone at length into the question of Sanson's line, because some of his followers seem to have misunderstood its meaning; to have attributed to it political significance; and to have copied it as an expression of Sanson's own judgment respecting the location of the Spanish-Dutch frontier. It is interesting to trace the growth and development of this fallacy. Blome in 1669, G. Sanson in 1669, Jaillot in 1695, Vischer about 1700, Dankerts about the same time, Overton in 1740, and R. and J. Ottens probably a little later, all published maps in which they reproduced Sanson's north and south line, without apparently giving it any other significance than it originally had.

ROBERT DE VAUGONDY.

In **1749**[1] and **1750**,[2] however, **ROBERT DE VAUGONDY** published maps of "*North and South America*," and of "*South America*," in which, for the first time, we find Sanson's north and south line given as the western boundary of the *Dutch*. Seventeen years later, in **1767**, another edition of Robert de Vaugondy's map of South America was published by **DELAMARCHE**, and in this it is evident that the correctness of the

[1] In Lib. of Congress, Amer. maps, II, 19.

[2] Atlas, map 31.

Atlas, map 32.

first publication had come to be doubted. This is shown by the fact that on this later map two distinct lines are given: one, the old Sanson line; and the other, a new line which departs from the first at a point about 75 miles before its northern extremity reaches the Orinoco; and which, with a curve, first to the east, and then to the north, runs to the ocean between two rivers, which are shown as flowing into the sea about midway between the Orinoco and the Essequibo. Whatever may be the merits of this new line, it does not appear to have been followed by subsequent map makers; and the vacillation of its own publishers respecting it certainly excuses any further consideration of it at this time.

Whatever Robert de Vaugondy or Delamarche may have thought in 1767, the first of these had, in 1749, given an erroneous interpretation to Sanson's line; and the mischief had therefore been done. This 1749 map was evidently taken as an authority either by Governor Pownall or by Sayer and Bennett who, between them, published a map in 1777 which, though said to be compiled from D'Anville with corrections by Pownall, is, so far as this line is concerned, a copy of Robert de Vaugondy.

There is every reason, however, to believe that Robert de Vaugondy was not the only one, nor even the first, to misread the maps of the Sanson school.

POPPLE.

Atlas, map 33.

British Blue Book, Venezuela No. 1 (1896), Appendix III, map 3.

In the British Blue Book there is a map (No. 3), entitled "*Map of Surinam. Extract from a map of the British Empire in America, with settlements adjacent thereto, executed with the approbation of the Lords Commissioners of Trade and Plantations, etc. By Edmund Halley, F. R. S., Astronomer Royal. 1733.*" The engraved boundaries which appear on this map are distinguished also by a red color; and below the title is the statement that red represents the Dutch possessions.

Atlas, map 34.

The ascription of the map to Halley is a mistake. It was made by **HENRY POPPLE**, and, as originally published in London, contains upon its face the following statement:

> Mr. Popple undertook this map with ye approbation of the R^t^ Honourable the LORDS COMMISSIONERS of TRADE and PLANTATIONS; and great care has been taken by comparing all the Maps, Charts and Observations that could be found, especially the *Authentick Records* and *Actual Surveys* transmitted to their LORD SHIPS by ye Governors of the *British Plantations* and others, to correct ye many errors comitted in former Maps, and the Original Drawing of this having been

she n to ye learned Dr. EDM. HALLEY, Professor of *Astronomy* in ye University of *Oxford*, and *F. R. S.* he was pleased to give his Opinion of it in the Words following.

"I have seen the above-mentioned map, which, as far as I am judge, seems to have been laid down with great accuracy and to shew the position of the different Provinces and Islands in that part of the Globe more truly than any yet extant. EDM. HALLEY."

It will be noted, in the first place, that this is primarily what it purports to be, namely, a "*Map of the British Empire in America, with the French and Spanish settlements adjacent thereto*," and not a "*Map of Surinam*," the Dutch colonies thus misnamed coming in only as they fell within the field of the map. That these appear at all is due to the fact that, in order to include the colonies of the Spanish Main, the map itself extends as far south as five degrees of north latitude; and that, on that account, they could not well have been left out. They form the extreme southeast corner of the map, and, as will be perceived by reference to the Blue Book copy, there is no attempt at details of the region. Such details as do appear are crude, even when judged by the standards of 1733. The boundary line by which Popple divides, not the *Essequibo*, but "*Surinam*" from "*Nova Andalusia*," is either a bad copy of Sanson's north and south

Atlas, map 33.

line, or else it is meaningless. It would be unfair to Popple to assume that he presented this line as expressing any opinion of his own respecting the extent of either Spanish or Dutch rights. The engraved boundary begins above the delta of the Orinoco at the mouth of a river which is given as "Covrama." It does not follow that river, neither is it guided by any visible mountain chain or water parting. Running to the southwest, it cuts directly across the next river which it encounters, leaving more than half of it to the east. It continues by dividing in two the fictitious lake of Casipa, notwithstanding the fact that, according to the map itself, St. Thomas is located on an island in that lake. It finally terminates at the limits of the map. This line is, on its face, arbitrary, and drawn without any apparent reason. Had its termination above the delta of the Orinoco been due to any supposed Dutch post or settlement there, such post or settlement would certainly have been shown, so as to thereby justify a departure radical and apparently indefensible. Had it been intended to set off to the Spaniards that territory which was immediately dependent on St. Thomas, it would at least have given to that city the lake, upon an island of which Popple erroneously supposed that it was located.

If the Blue Book copy of this map, which colors all the islands of the Orinoco delta as Dutch, be a correct reproduction of the original, it only serves to emphasize the untrustworthiness of the map as regards Dutch and Spanish boundary lines. Neither Holland nor Great Britain has ever claimed, or pretended to claim, that delta. Copies of the same map in the libraries of Congress, of Harvard College, and of the Geological Survey (the first of which is reproduced in the atlas accompanying this report) are uncolored, and show merely the engraved line.

Atlas, maps 34 and 35.

It may well be doubted, from what has been said, whether Popple gave this feature of the map any thought whatever. It was beyond the declared province of the map itself, a mere useless and incidental appendage; and the most plausible explanation that can be given of it, consistent either with reason or with the intelligence of Popple, is that it was rudely copied from Sanson himself, or, what is much more likely, from some imperfect reproduction of his maps.

One thing is certain, and that is that few, if any, took this line seriously. So far as I have been able to ascertain, it was reproduced only twice, both times in 1744. In that year Emanuel Bowen published an atlas, which contains,

among others, four different maps showing the Orinoco region. Only in one of these does the Popple line appear, and that is in a "*Map of the West Indias*," in which "*Surinam*" plays an unimportant part. In his special map of "*Terra Firma*" no boundaries whatever are given. Also in 1744 appeared an anonymous map, as an illustration in Rapin de Thoyras' History of England, "as continued by N. Tindal." This was a "*Map of North America*," in which a small part of "*Surinam*" appears in the southeast corner. It is hardly deserving of mention.*

THE DELISLE LINE.

After Sanson, the next man who exercised any decisive influence on the cartography of Guiana was **DELISLE**. This geographer pub-

Atlas, map 36. lished his first map in **1700**; followed it by

Atlas, map 37. a second in **1703**; and finally by a third in

Atlas, map 38. **1722**. These maps, taken together, reveal the purpose which Delisle had in laying down the lines there shown. Those lines are the more important, because passing first through the hands of D'Anville, Arrowsmith, and others,

* Since writing the above my attention has been called to two other maps where this line appears: one, a map by *Buache*, published in Paris in 1740; and another, a map by Covens and Mortier of 1757.

they came at last to find their final expression in what has come to be known as "The Schomburgk Line."

Delisle's earliest map may be said, in a sense, to have gone back to first principles. Like some of the earlier geographers who had labeled Terra Firma *Spanish* by giving it the name of "*Castilla del Oro*," Delisle labeled it *Spanish* by setting off various well-known Spanish provinces to the west, and by then including the remainder, which comprised all the region to the east of the Orinoco and a considerable portion to the west, under the name of "*Nle. Andalousie.*" True, he gave it the double name of "*Guiane* ou *Nle. Andalusie*"; but the use of the latter designation, taken in connection with the fact that he gave no European settlements of any kind east of St. Thomas, makes it quite clear that, to his mind, "*Guiane*" was all Spanish. The map bears other evidences of original work.

But Delisle was evidently an enterprising and progressive geographer; and, not satisfied with his first work, he published a second map, three years later; which, in addition to showing a modified geography of the region, showed also modified boundaries.

In this second map "*Nle. Andalusie*" and

"*Guiane*" were no longer confounded. The former was pushed across the Orinoco to the west, and even there was confined to a region comparatively near the coast. "*Guiane*" likewise suffered loss: first, by having "*Nle. Andalusie*" taken from its northwesterly corner; and again, by having its southwesterly extremity lopped off and given to "*Nou^au. R^e. de Grenade.*" As now bounded, "*Guiane*" comprised all the territory east of the Orinoco, and an apparently unsettled district west of that stream.

The change from 1700 to 1703 is significant, and must be understood in order to properly interpret the later map of 1722.

In the first map, within the region designated as "*Guiane* ou *Nle. Andalusie*" appear five towns; two of them (*Comana* and *St. Thomas*) Spanish, and three (*Port de Morequito*, *Port de Carapana*, and *Manoa*) Indian. The whole territory is recognized as Spanish, and there is no attempt to set apart any portion of it as still open to settlement by other European nations.

The "*Guiane*" of 1703 is quite different. The portion lying west or northwest of the Orinoco contains the name of not a single town or village. Except for the names of two Indian tribes (*Aroras* and *Amapaia*), the region might be supposed to be uninhabited. But the portions

which since 1700 Delisle had cut off from the northern and southern extremities of this region and had given to "*Nle. Andalousie*" and "*Grenade*," contain towns. It would certainly look from this as though Delisle, in dividing this uninhabited tract from the settled land north and south of it, had merely intended to separate the civilized, or semicivilized, from the savage. It would be absurd to suppose for one moment that he marked this tract off as Dutch territory. Even the extreme British claim does not touch the eastern bank of the Orinoco, except at its mouth; while *this* tract extends to a point at least two hundred miles west of that river.

The fact that this wild region was marked off, taken in connection with the fact that it was made a part and parcel of the region lying to the east of it, between the Orinoco and the Amazon, certainly raises a presumption that the latter region, in Delisle's mind, was of much the same character as the former, and that it was logical to class the two together.

What about the region to the east?

After passing the Orinoco and leaving the Spanish city of *St. Thomas* and the two Indian villages of *Carapana* and *Morequito*, Delisle's map shows no trace of civilization for quite three

hundred miles, until we reach the Surinam River, at the mouth of which appears a Dutch fort. The intervening country is covered with the names of Indian tribes, and nothing more. Leaving the Dutch fort on the coast and going into the interior, we see not a trace of civilization. What we do find are names and legends, such as "*Acoquas nation tres nombreuse*," "*Moroux people fort barbares*," "*Acuranes pays noyez*," etc. Not only are there set down in this vast district a Dutch military post (Fort de Zelande), but—what to a French Royal Geographer must have seemed of far greater importance—the French "Isle et Ville de la Cayenne."

In the middle of all the savagery depicted, with a Spanish city 350 miles west and with a French town 250 miles east, can it be believed that a French geographer intended that the boundaries of Guiana, going 300 miles farther west than the Spanish city, 250 miles farther east or southeast than the French town, and nearly 500 miles south into unknown and unexplored regions, should be taken as marking territory appertinent to and dependent upon a Dutch fort on the coast!

What this line meant must now be evident. As the tract west of the Orinoco was cut off from civilization by the lines which separated it from

"*Nle. Andalusie*" and "*Grenade*," so was all the region to the east cut off in the same way. This was in no way inconsistent with the presence within that territory of a Spanish, a Dutch, and a French lodgment. In 1700 Delisle had given *all* the country to the Spaniards. By 1703 he had come to see that that would not do; that the Dutch and the French had each of them obtained a foothold within that territory, and that title by mere discovery, unsupported by effective and actual as distinguished from constructive possession, might possibly have to give way before the inroads of other civilized nations. He therefore gave to Spain what was indisputably hers by *actual* occupation and settlement, calling it by the name of "*Nle. Andalusie*" and "*Grenade*"; and as for the rest, he left it a region by itself, within which he showed various national posts, but which he made no effort to parcel out between the nations which those posts respectively represented.

Let us now turn to the map of 1722, which, unfortunately, is on a smaller scale, shows little detail, and is, therefore, more difficult to interpret. In some respects, however, this very absence of detail becomes significant, and discloses, rather than obscures, the meaning of such features as do appear.

We must approach the study of this map, keeping in mind the purpose which Delisle had when he published his 1703 map and drew his 1703 line. That purpose may have changed in the meantime; yet the presumption is against it, and the burden of proof on the other side.

In this latest map Delisle gave the name of "*Terre Ferme*" to the whole of the northern extremity of South America, bounding it on the south by an engraved and colored line. West of the Orinoco appear the names of various well-known Spanish provinces, which he left without boundaries. The whole western region he called "*Castille d'or.*" The ancient word "*Paria*," never before used by Delisle, he now employed to designate that region west of the Orinoco which, in his map of 1703, he had made a part of "*Guiane.*" The eastern portion of "*Terre Ferme*," as a whole, he designated "*Goyane*," and the portion so designated he bounded on the west by an engraved line, starting on the coast from a point a little to the east of the point of entrance of the eastern mouth of the Orinoco. From this point he ran his new line southwestwardly, keeping it nearly parallel with, and at a distance of about seventy-five miles from, the Orinoco; then curving it slightly to the right as it approached its southern

terminus, he made it meet the eastern branch of a mountain chain shown as coming from the southeast.

What was the meaning of this line? There is no evidence to show that it was intended as the western boundary of the Dutch colony of Essequibo. On its face it purported to be the boundary merely of "*Goyane*"—the "Wild Coast"—and to be therefore devoid of political significance. Certainly all that we have learned respecting the character of Delisle's earlier maps confirms this idea. In his map of 1703 Delisle had merely intended to separate the civilized from the uncivilized. In his later map of 1722, whatever else he may have done or intended to do, he did, as a matter of fact, precisely the same thing. The region west of the Orinoco, which formerly had constituted a part of "*Guiane*," he still designated as wild by the simple use of the word "*Paria*"—an aboriginal name first used by Columbus. The difference between "*Paria*" and "*Guiane*," and the apparent reason why they were now separated, was that, whereas "*Paria*" was surrounded on all sides by Spanish settlements, and was therefore no longer open to other nations, "*Guiane*," save only at the few points already occupied by Europeans, continued accessible along its whole

coast. The Orinoco region, which, if Delisle's map had been correct in geographical details, would have been *approximately* the region west of his dotted boundary line, he had perhaps now come to look on as a region naturally and necessarily dependent upon and appurtenant to St. Thomas.

In Sanson's time navigators had been accustomed to use the western mouth of the Orinoco in preference to the eastern. Whether or not this continued to be the case in 1722 does not appear; but, however this may have been, certain it is that by the latter date the Spaniards had become more alive to the importance of controlling all the mouths of the river upon which their principal city was located. Since 1650 (the date of Sanson's first map), British, French, Dutch, and possibly Swedes, had all cruised in or about the mouth of the Barima. Its importance to the Spaniards of St. Thomas, from a military and commercial standpoint, had thereby been suggested; and it was probably because he was thus led to look on it as necessary to the safety and prosperity of that city that Delisle, in the absence of any British, Dutch, French, or other post in that neighborhood in 1722, drew a line which left the Orinoco *and all of its mouths* within the region which he

assigned to St. Thomas. Apparently, then, Delisle's line, whatever meaning it may really have had, did, as a matter of fact, very correctly show the division between the Spaniards on the west and the wild and unsettled country on the east. That it was intended as the western boundary of Essequibo is more than improbable. The Essequibo settlements were not shown on the map; and I have already remarked on the absurdity of assuming boundaries for places whose existence is not even hinted at. No reason is apparent on the face of the map why a Dutch boundary should have begun near the mouth of the Orinoco. If Delisle had believed in the existence of a Dutch post at that point, and had determined to draw a political boundary line based upon that belief—a boundary differing radically from all lines previously published—he would, for his own vindication, have indicated the location of such a post on his map, just as Bouchenroeder did later in 1798.

No; this line could not have been intended as a Dutch boundary. "*Goyane*" appears on Delisle's map as a whole, unbroken and undivided; bounded on the north and east by the ocean and the Amazon; on the south by a mountain chain and the dotted line separating it from

the Amazon region; on the west by the line under discussion. That line was a boundary of "*Goyane*"—a name which the region bore—not of *Essequibo*—a name which the region did not bear. Within it were the towns of Surinam and Cayenne, one Dutch and the other French. No boundary separated those towns or settlements from each other; no boundary fixed the limits of the Dutch on the west, nor of the French on the east.

Unlike Sanson, Delisle seems not to have published any written explanation of his own respecting his map; but in an "Introduction," which, either by him or by his publishers, is attributed to Sanson, and which is adopted without reservation, and may therefore be taken as expressing Delisle's own views, we find confirmation of the conclusions here reached. The following translation is from page 27 of the "Introduction" to Delisle's undated "Atlas Nouveau," published at Amsterdam by Jean Covens and Corneille Mortier:

CHAPTER III.

THE PRINCIPAL STATES OF AMERICA.

3. The Foreign Dominions established by some of the States of Europe are as follows:

1. France has established herself in New France,

in various Caribbean Islands, and upon the coast of Guiana.

2. Spain, or almost entirely Castile, possesses there New Spain, *Terre Ferme** or New Grenade, Peru, Chili, Tucuman, which forms a part of Paraguay, and the greater part of the Antilles.

* * * * *

5. The United Provinces under the name of the Dutch, there hold various Caribbean islands, *and SOME colonies on the coast of Guiana.**

"*Terre Ferme*," which Delisle thus stated to be in the possession of Spain, is not defined in the "Introduction"; but his map of 1722, by carrying the name across the boundary of "*Goyane*," shows that it was not limited by that boundary. On the other hand, so far was Delisle from regarding "*Goyane*" as Dutch that he distinctly limited the *Dutch* possessions in that quarter to "SOME *colonies on the coast*"; referring in much the same language to the French settlements at Cayenne. Thus has Delisle by direct statement confirmed the interpretation above placed upon the character of his line.

D'ANVILLE.

If Sanson had been understood by his immediate and misunderstood by his remote followers, Delisle had the misfortune to be misunderstood and misinterpreted almost from the start by

* The italics are not in the original.

D'Anville; a man whose name and influence were sufficient to perpetuate the errors which he introduced down even to the present day.

D'Anville has generally been looked upon as the originator of the line which has come to bear his name, and which has been copied by so many map makers. The great contributions which he made to geography, his researches, and the independence and originality which he exhibited, combined with the fact that on his map, with its improved geography, his boundary line between the Dutch and Spanish possessions in Guiana *appears* to differ from the line which Delisle published in 1722, all support this idea; yet a careful comparison of his work with that of Delisle shows that, however original D'Anville may have been in portraying the physical characteristics of that country, and in showing for the first time a boundary between the Dutch and French possessions in Guiana, *as regards the particular line now under consideration*, he was a mere copyist of Delisle; and, what is more, a mechanical copyist.

How this came about it is not difficult to see.

Atlas, maps 39 and 40.

D'ANVILLE'S map of 1748, in which his line first appeared, was not a special map of *Guiana*, but a general map of *South America*. The correspondence going on about that time between

the Zeeland Chamber and the Dutch Governor Storm van 's Gravesande, shows how hazy and indefinite were the notions of boundary, even in the minds of the parties directly interested in the matter. It was not strange, therefore, that a geographer, engaged in making a general map of the whole continent, should give little study to a small and comparatively unimportant feature of that map. The boundary question was not then the burning issue which it is to-day. The actual settlements of the Dutch and Spanish were separated by 150 or 200 miles of wild territory, uninhabited save by savage Caribs; its streams and waterways were difficult of navigation—some of them at certain seasons of the year quite impassable. The extensive swamps, impenetrable forests, and mountain ranges which intervened made a post or two sufficient provision against the running away of slaves from the Essequibo to the Orinoco. What more natural, under those circumstances, than for D'Anville to leave the boundary question alone? He found at his hands, ready made, a line laid down by an eminent Royal Geographer of his own country. An edition of Delisle's 1722 map, published after his death by Covens and Mortier, had been altered by the addition of the words "*Aux*

Holland" after the name "*Surinam*," and "*Au Roi de France*" after the name "*Cayenne.*" True, this in no way altered the meaning of Delisle's line; but the addition of these words may easily have misled D'Anville in his interpretation of that line. To one not especially looking for a distinction between political and what may be called *regional* boundary lines, it was most natural that Delisle's map, particularly with the added words, should at first glance have given the impression that it contained a political Dutch-Spanish boundary. Most boundaries are political; regional boundary lines are exceptional. Even a trained geographer like D'Anville, or like those who to-day assume Delisle's line to be political, might well misread such a boundary unless its nonpolitical character were forced upon their attention. It is precisely because of this that I have entered into a lengthy collation of the facts to show what Delisle himself really intended.

Under these circumstances, it was a most natural thing—in no way derogatory to D'Anville's reputation as a geographer—that he should have fallen into the error above pointed out, and that he should have copied Delisle's line into his own map, giving to it, for the first time, a *political* significance.

That it was an adoption of Delisle's there can be no reasonable doubt. D'Anville would not have given it as an independent line, expressive of his own judgment regarding the proper division between the Spanish and Dutch, unless he had at the same time shown on his map something to warrant it—some basis for its support. As it appeared on D'Anville's map, it was on its face an arbitrary line. On that map it disclosed no reason for starting from where it did, nor for running thence in a fixed direction regardless of natural barriers. Its northern terminus was on the coast just outside the entrance of the Orinoco mouth; yet the map failed to disclose any Dutch post there or to show at that point any traces of Dutch occupation. Leaving the coast, it ran into the interior, touching and all but crossing the Barima River, and then crossing, first the upper branch of the Cuyuni, then the Yuruari, and finally the Mazaruni. These were arbitrary features which serve to show that this line was not one exhibiting intelligent thought, but rather one copied from some other map, without any appreciation of what it had there meant. Thus we see that, from beginning to end, the line is, on its face, arbitrary; and that the map upon which it appears fails to disclose in its support any reasons either of settlement or topography.

Not so with the same line as it appeared in Delisle's map of 1722. According to the different geography of that map, the line had there clearly indicated either an equal division of the Orinoco-Essequibo region, or else it had marked the water parting between the valleys drained by those rivers. In either case the division was intelligible and based upon well-recognized principles. The same line transferred to D'Anville's map was, by reason of the modified geography of that map, shorn of meaning and divested of its original character.

The considerations thus adduced seem to establish beyond reasonable doubt the true origin of the D'Anville line. It is possible that the facts which seem to me to show this may not carry equal conviction to all minds. Some may find a more plausible explanation of D'Anville's Spanish-Dutch boundary in the fact of its parallelism with the Dutch-French boundary which appears upon the same map: To me it seems more likely that the Dutch-Spanish boundary, instead of following the Dutch-French boundary, was itself the controlling factor in fixing the direction of the latter after it had left the Maroni River. Others, again, may accord a greater measure of importance to any one of a dozen other facts,

each of which may successively be invoked in support of as many different theories. While frankly recognizing the limitations of our knowledge in this regard, and while admitting that the theory given is not entirely free from possible objection, it is important to note that no other theory which has been suggested can so satisfactorily explain the arbitrary character of the line itself. As has already been explained, whatever may have been the origin of the line, that arbitrary character is patent, at least in the absence of any claim to documentary evidence supporting it; and if D'Anville did not in fact copy from Delisle, the only effect which that conclusion could have would be to lessen our estimate of D'Anville as a careful and painstaking geographer. The only explanation, it seems to me, which is consistent with D'Anville's high standing as a geographer, is that which has been here advanced. After all, if the arbitrary character of the line be recognized, the question of origin becomes one of secondary importance, its only use being to explain how and why the line is arbitrary.

There is another consideration which shows that D'Anville either took his line from Delisle without understanding Delisle's meaning, or that he laid it down arbitrarily. Strictly speaking,

it is a consideration outside the limits of this report, but it so entirely confirms what has been said that it may be instructive to refer to it. The contemporary correspondence between the Dutch Governor Storm van 's Gravesande and the Dutch West India Company shows that at this time they did not know where the boundary was nor how to determine it. Upon becoming acquainted with D'Anville's map, they at once accepted this line *on his authority*, but did not even then know any historical facts whereby to fix it. It is therefore clear that D'Anville did not base it upon any historical research nor upon inquiries of the people who must be supposed to have been the best informed about the facts.

Blue Book, Venezuela, No. 3 (1896), pp. 86–87, 88, 90, 110.

Blue Book, Venezuela, No. 3 (1896), pp. 109–110.

Delisle's "*regional*" boundary line having thus been labeled political by so high an authority as D'Anville, its character has not been heretofore questioned; and we find a host of geographers and map makers who have simply followed in D'Anville's footsteps, and have mechanically copied his work. Among these may be mentioned De La Harpe (date unknown), Bolton in 1755, Covens and Mortier in 1757, Van Bercheyck in 1759 (or rather the inset in his map, by whomsoever supplied), Hinton (The Universal Magazine) in 1762, The London Magazine in 1763, Buache in

1763, Tirion in 1767, Jefferys in 1768 and 1775, Bowles in 1770, Sayer in 1772, Kitchin about 1774, Robertson in 1777, Schloezer in 1777, Santini in 1779, Brion de la Tour in 1780, Campens in 1780, The Political Magazine in 1780, Kitchen (sic) in 1782, Von Reilly in 1795, Janvier in 1784, Moithey in 1785, Dunn in 1786, Bowen about 1788, Clouet in 1793, Morse in 1793, Mannert in 1796, Wilkinson in 1794 and 1800, Blomfield in 1807, Kelly in 1819, and others.

Those here mentioned have, for the most part, followed D'Anville without attempting to disguise the fact, many of them quoting him as their authority.

THOMPSON.

In 1783 William Faden published a chart by L. S. de la Rochette from the observations of Captain **EDWARD THOMPSON** in the year 1781. Thompson was the officer in charge of the force that seized the colony of Essequibo in March, 1781. He remained there until October of that year, and during this interval collected information respecting the geography and extent of the colony. The chart which, two years later, was published by Faden, was the result of those investigations. Apart from

Atlas, map 43.

his own observations along the coast, Thompson's sources of information, particularly as to the *extent* of the colony, were probably the maps of D'Anville and **SIRAUT-DESTOUCHES**, and the history of the Guiana colonies by the Dutch official Hartsinck.

Atlas, maps 66 and 67.

The Siraut-Destouches map was furnished him in answer to a request made by Thompson on April 13, 1781, of the Court of Policy of Essequibo, for the purpose, as he said, that he might give His Majesty of Great Britain an adequate notion of what pertained to the colony. This map, the only known copies of which are in the hands of the Commission, and are reproduced in the atlas accompanying this report, goes only to just beyond the Maroco River, and lays down nothing west of the post on that river.

Atlas maps 66 and 67.

Thompson could not, therefore, have obtained his Barima boundary from that source. From what source did he obtain it? D'Anville and his followers were the only map makers who had gone into the Barima region for the purpose of locating there a political boundary. In view of this fact, it seems hardly too much to say that, had it not been for the example thus set, Thompson would hardly have ventured so far beyond the limits of a map furnished by the colony itself in answer to a formal request.

It is possible, even probable, that Thompson was influenced by the statement of Hartsinck respecting the existence of a Dutch post on the Barima River, and by the further statement of the same historian that "some limit Dutch Guiana on the west by the Barima River." It is quite evident that Hartsinck himself was little influenced by either of these considerations, for in his own map he placed the boundary at the Waini River. Nevertheless, these statements, particularly as they were in line with his own interests as Colonial Governor, probably decided Thompson to follow D'Anville's lead. They gave an apparent basis of right to D'Anville's line, or at least to a line in that region. Thompson recognized this fact: it is also evident that he recognized the arbitrary appearance of the D'Anville line, and that, resting upon Hartsinck's statements, he sought to adjust that arbitrary line to a natural feature lying in its path. The course of the Barima River, as then understood, was about parallel to the course of the D'Anville line. It started from about the same point on the coast, and ran into the interior in such a direction that D'Anville's straight line had to be deflected but very little in order to make the two coincide. This is evidently what was done, and so a line which had been arbitrary on its face was given

the appearance of a line drawn according to natural features. The adoption of the Barima River as a boundary led to further and important changes in later maps, and thus it is that Thompson comes to be a link between D'Anville on the one hand, and Bouchenroeder and Arrowsmith on the other.

JEFFERYS.

To interrupt for a moment the thread which we are following, and which will finally be seen to connect Delisle with Schomburgk, it may be useful to turn for a moment to a series of maps published about this time, which serve as an excellent illustration of the vacillation in the minds of map makers respecting the exact location of the Barima boundary.

THOMAS JEFFERYS, who has been mentioned as a follower of D'Anville, published four charts, to which reference will here be made.

Atlas, map 41.

They are dated, respectively, **1775**, 1781, 1792, and 1795. The first of these gave the D'Anville line without change of any kind. It showed the geography of the coast region in detail, erroneously placing the Amacura east of the Barima, but locating both of these streams west of the boundary line, and within Spanish territory. Barima Point, called by Jefferys

"*Cape Breme according to the Dutch pilots*," was by him placed at the mouth of the Amacura, and well to the west of the boundary.

The chart of **1781** showed the first change from the old Delisle-D'Anville line. In this Jefferys moved the northern extremity west as far as the Amacura, which still continued to appear east of the Barima. At the mouth of the river he placed the words: "*R. Amacura which Divides the Dutch from the Spanish Settlements.*" **Atlas, map 42.**

When Jefferys came to publish his third chart of **1792**, he had before him Thompson's map of **1783**, and the result is evident: both the geographical features and the boundary were taken directly from that map. In this new chart the "*Cape Breme*" of his earlier chart took the English name of "*Cape Barima, or Cape Breme of the Dutch.*" This cape was located entirely to the east of the river, which was made to serve as boundary; and the Amacura, which in his earlier chart had appeared to flow into the Orinoco around both sides of Cape Breme, giving to this latter the form of a delta, was in the later chart moved east to correspond with the same feature in Thompson's map. **Atlas, map 44.** **Atlas, map 43.**

Jefferys' chart of **1795** is interesting, because it shows to some extent a recession from the position suggested by Thompson and accepted **Atlas, map 45**

by Jefferys in 1792. In this last chart Cape Breme is shown as lying entirely to the west of the Barima River, and therefore within Spanish territory.

BOUCHENROEDER.

Atlas, map 46.

In 1798 **BOUCHENROEDER** published a map, a small inset in which has been reproduced in the British Blue Book as **No. 7.** Its connection with the D'Anville line and with Thompson's and Jefferys' charts is evident. Bouchenroeder, following the lead of Thompson, gave the Barima River as the boundary between the Dutch and the Spanish as far as that river went; but, in imitation of D'Anville, he prolonged the line from the head waters of the Barima into the interior, so that, if continued, it would have cut the Cuyuni River just as the D'Anville line had done. Bouchenroeder erroneously placed the Barima River to the west of the Amacura. So far he was a copyist. The new feature which he introduced was what he called "*Ancien poste Hollandaise Sur les Limites des possessions Espagnoles*"; and this "poste" he placed on the Barima not far above its mouth.

Venezuela, No. 1 (1896), Appendix No. III.

The testimony of Bouchenroeder as to the existence and location of this so-called "poste" is open to two objections. First, that it was purely hearsay. The post was called an

"*ancien*"—that is to say, an *old* or *extinct* post—and therefore must have ceased to be. His testimony as to its existence is therefore of little value.

In the second place, Bouchenroeder's knowledge of the geography of the region was extremely limited. Not only did he misplace the Amacura and Barima rivers, but he grossly erred in showing the latter as a straight stream, running in a direction conveniently near the arbitrary line which D'Anville, Thompson and Jefferys had laid down. No details of the region were attempted; and it must be evident to even a superficial observer that, in this particular at least, Bouchenroeder's work was merely an attempt to carry out the ideas suggested by Jefferys, Thompson, and D'Anville. In sailing charts, which showed only the coast line, Jefferys and Thompson had indicated the Barima River as the boundary. In Jefferys' chart of 1775, which included a portion of the interior country, that geographer had given the boundary as a straight line. In later maps Jefferys and Thompson had made the Barima River and the D'Anville line to coincide. Bouchenroeder did the same; but with an evident desire to adhere to the D'Anville line more closely than either Thompson or Jefferys had

done, and with that freedom which a limited knowledge of the geography of the region permitted, he drew the Barima River as a straight stream lying directly in the path of the boundary line; and from its head waters, as has already been pointed out, he continued that boundary line as before into the interior in a direction which, if prolonged, would, as in D'Anville's map, have cut the Cuyuni River.

It had been easy for Thompson, Jefferys, and Bouchenroeder thus to make the D'Anville line and the Barima River conicide, because in each of their maps the two lay so close together. Thus it was that they paved the way for the next geographer, who discarded the straight line almost entirely, and made his boundary follow the windings of the Barima. Thus it was that John Arrowsmith came to form the next link in the chain which will be found to finally connect Schomburgk with Delisle.

JOHN ARROWSMITH.

JOHN ARROWSMITH published his first map in 1832. His uncle, Aaron Arrowsmith, had been a map publisher before him, and had copied largely from Cruz Cano, who will be examined later. Thompson and Bouchenroeder either never saw, or else entirely ignored, the **CRUZ**

Atlas, map 47.

CANO map published in **1775**. Cruz Cano had given the correct relative positions of the Barima and Amacura rivers, and had shown many details of the interior region, which apparently never came to the knowledge of either Jefferys or Bouchenroeder. **Atlas, map 50.**

Aaron Arrowsmith had reproduced many of these details in his maps. John Arrowsmith did the same, but added new features and modified old ones in accordance with newer and better information. His map of **1832** probably represents what was, at that time, the best knowledge of the geography of that region. **Atlas, map 47. See also Jour. Roy. Geog. Soc. IV, 320.**

As regarded boundaries, Aaron Arrowsmith had followed Cruz Cano, giving to the Dutch, and to their successors the British, nothing beyond the Pomeroon district. John Arrowsmith, probably under his uncle's influence, engraved the same boundary upon his map; yet his own leaning was evidently in another direction, for we find on that same map a second line, lying farther west, drawn through the same region through which Delisle, D'Anville, Jefferys, and Bouchenroeder had drawn theirs. **Atlas, map 47.**

As already stated, John Arrowsmith, taking his uncle's (Aaron Arrowsmith's) maps as his guides in matters of geographical detail, correctly

placed the Barima River to the east of the Amacura. Bouchenroeder had shown both of these streams on his map, but had mistakenly transposed their names. On this account his "*ancien poste Hollandaise, etc.*" had been misplaced. His intention had evidently been to locate it on the Barima; and he in fact placed it upon a river to which he gave that name. As it turned out, however, Bouchenroeder's *Barima* was Arrowsmith's *Amacura;* and as this latter geographer, when he came to publish his map, chose to follow Bouchenroeder's *location* rather than his *nomenclature*, the boundary line, which he copied from Bouchenroeder, took another step westward.

As has been already stated, Bouchenroeder had made the river follow the boundary line: John Arrowsmith made the boundary line follow the river. As the two maps gave different courses for the same stream, so did they give different directions to boundary lines which, apparently different, were in fact the same. Beyond the head of the Amacura (called by him "Barima") Bouchenroeder had drawn a straight line, approximately parallel to the Essequibo. Had this line been continued beyond the Cuyuni, it would have cut that stream just as D'Anville's line had originally done.

Taking the general direction of the line in Arrowsmith's map, it very nearly paralleled the Essequibo River. In the absence of any written statement by John Arrowsmith explaining the principle upon which he drew that line, or giving the source from which he copied it (and diligent search has failed to discover any such statement), we are warranted in going to the map itself for an explanation.

One thing is quite clear: Arrowsmith either intended to draw a new line, or he intended to copy an old one. If his intention was to arrive at a solution of his own respecting the merits of the boundary question, his map ought, upon its face, to bear evidence of that fact, and to disclose the principle upon which the attempted division was made.

An examination of Arrowsmith's map shows, in the first place, the existence of *two* boundary lines: this indicates vacillation and uncertainty. Had the author been sure of either line he would certainly have discarded the other; had he intended to publish a new line to the world—a line proposed by himself, and based upon some principle the justice of which appealed to his own mind—he would hardly have weakened its effect by producing another line alongside of it.

In the second place, if Arrowsmith had not depended upon the authority of Bouchenroeder or Thompson for the Dutch ownership of Barima Point, or for the existence there of a supposed Dutch post, it seems unlikely that he should have ventured to show a boundary beginning near that point, without himself giving, in its support, some evidence of Dutch possession in that vicinity.

In the third place, the line drawn by Arrowsmith ignored important physical features which would not have been ignored had it been a new line drawn without regard to other maps. Notwithstanding its apparent regard for topography, it bears evidence on its face of being an arbitrary line adjusted to only those natural features which happened to lie in its path, but careless of other and more important features lying beyond it.

The Amacura River, which under the name of "Barima" had been given by Thompson, Jefferys and Bouchenroeder as the boundary between the Dutch and the Spanish, was not followed to its source by Arrowsmith: he presently made the line diverge from that stream to follow a tributary running conveniently parallel to the Essequibo. The Imataca Mountains, which formed a natural boundary separating the

Cuyuni basin from the coast region and from the upper Orinoco valley, were ignored and crossed without apparent reason.

The Cuyuni, which itself formed a well-marked natural line was not followed, but was cut at a point where neither Dutch nor Spanish have ever claimed to have any settlements.

In his map of **1832**, Arrowsmith ran the southern extremity of his line around a bend of the Mazaruni; yet in an **1840** reprint of a map of Aaron Arrowsmith of **1810**, John Arrowsmith ran the line across the Caroni and across half a dozen of its tributaries, showing how little he was given to regarding natural boundaries.

Atlas, map 47.

Atlas, map 48.

All of these circumstances negative the theory that Arrowsmith had any intention of publishing a new line. Notwithstanding the fact that his boundary here and there follows streams and ridges, it is as a whole arbitrary. It closely resembles the lines of Bouchenroeder, Jefferys, Thompson and D'Anville: it is, in fact, a copy of those lines; and its appearance differs from theirs only because its author took advantage of the natural features which came in his way to invest it with a less arbitrary appearance. Of what other explanation is Arrowsmith's line susceptible? Sanson, Delisle, and the followers of these two had been the only ones to draw lines from or

near the Orinoco mouths down into the interior of Guiana.

We are thus forced to the conclusion that Arrowsmith's line is, after all, Bouchenroeder's line, Jefferys's line, Thompson's line, D'Anville's line, Delisle's line; and that as such it is entitled to such weight, and such only, as those lines may themselves possess. The modifications are merely modifications and nothing more: they can not avail to change the original meaning of the line itself.

SCHOMBURGK.

From Arrowsmith we pass to Schomburgk, whose line has played such an important rôle in this controversy.

It is so essential, however, that we keep in mind the purpose of this particular paper that I venture to preface what I have to say by a few words of explanation.

The Schomburgk line has a *diplomatic* and it has a *geographical* importance. Its bearing upon the boundary question is, therefore, of two distinct and entirely separable kinds.

On the one hand, it has the distinction of having been proposed by Great Britain as the result of official surveys and explorations made under her direction, and of having been made

the subject of diplomatic correspondence, in the course of which its tentative character was unequivocally recognized. These are important questions; but it is not the province of this paper to discuss them.

On the other hand, the Schomburgk line has a *geographical* importance. It behooves us to ascertain its origin, to know its meaning, and to weigh its merits, viewing it solely as the opinion of an expert witness, and ignoring, for the time being, its diplomatic and other relations.

A further word by way of introduction.

Various lines have been published which have, rightly or wrongly, been attributed to Schomburgk. I mention but two: one published in Parliamentary Papers for 1840, vol. 34; another published in the Colonial Office List for December, 1886. Both of these lines are reproduced in the Statesman's Year Book for 1896, the first being therein designated as "Schomburgk's Original Line," and the second as "Schomburgk's Modified Line." Here, again, the questions which are raised by the existence of more than one line, are questions of importance from a *diplomatic standpoint;* but *for the purposes of our present discussion* they are immaterial. What we want to know is *not* the effect which the publication by Great Britain,

first of one line and then of another, may have upon the present controversy; but, what is the intrinsic merit and worth of *any* line proposed by or attributed to Schomburgk?

Of the two lines which have been mentioned, the first is so like the Arrowsmith line that it seems hardly worth while to make it the subject of a separate study. The second is the line which Great Britain now publishes as the *only* "Schomburgk Line." On this account, and also because it apparently departs from the Arrowsmith line of 1832 more than any other of the lines attributed to Schomburgk, I shall, for the purposes of this examination, treat it as

Atlas, map 49.

the *only* "**SCHOMBURGK LINE.**"

In order to estimate the merits and to ascertain the real significance of this line, it will first be necessary to investigate its origin, and to ascertain whether it expresses an independent opinion of Schomburgk himself respecting the boundary question, or whether it merely voices the modified opinion of another man. If Schomburgk was the originator of the line, it has a special significance of its own; if, on the other hand, the boundary which he proposed should turn out to be merely an old line modified, then its real significance must largely depend upon the significance of that other line.

For an answer to these inquiries let us turn to Schomburgk's maps, memorial, reports, and letters, and to the authority and instructions which he received from the British Government.

On July 1st, 1839, Schomburgk presented a "**MEMOIR AND MAP**" to Governor Light, setting forth therein, first, the importance of the boundary question; second, the grounds upon which he conceived that Great Britain was entitled to Barima Point; third, a detailed description of a boundary line which he presented, *not as his own*, but as one which had been considered *by others* as marking the western limits of the "Pomeroon Colony;" fourth, an unqualified approval of *that* line by himself, expressed in the following language:

Parliamentary Papers, 1840, vol. 34 (288), pp. 13–15.

> **"My deductions from the different circumstances to which I have attempted to draw the attention of your Excellency are * * * that the *limits thus defined* are in perfect unison with the title of Her Britannic Majesty to the full extent of that territory;"**

Parliamentary Papers above cited, p. 15.

and, fifth, a strong recommendation urging the necessity of determining the limits of British Guiana by *actual survey*.

In other words, Schomburgk described a particular line; he expressed his approval of *that* line; and, without a thought of entering into new investigations as to its merits or demerits,

he proposed that, what had theretofore existed on paper alone, should now be laid down upon the ground by "*actual survey.*"

Parliamentary Papers above cited, pp. 14, 15.

The following is Schomburgk's own language on the subject:

"Of equal importance is the determination of the western boundary (of British Guiana), the limits of which have never been completely settled. * * *

As the first (colony of Pomeroon) was the most western possession, and formed the boundary between Spanish Guiana, its limits were considered to extend from Punta Barima, at the mouth of the Orinoco (in latitude 8° 40′ N., long. 60° 6′ W.), S.W. by W. to the mouth of the river Amacuru, following the Cano Coyuni from its confluence with the Amacuru to its source, from whence it was supposed to stretch in a S.S.E. line towards the river Cuyuni (a tributary of the Essequibo), and from thence southwards towards the Mazaruni. * * *

My deductions from the different circumstances to which I have attempted to draw the attention of your Excellency are that it is practicable to run and mark the limits of British Guiana on the system of natural divisions, and that the limits thus defined are in perfect unison with the title of Her Britannic Majesty to the full extent of that territory. * * *

That a strong recommendation be forwarded to the Home Government, urging the paramount necessity of determining the limits of British Guiana by actual survey under a commission appointed for that object, and empowered to plant along the extent of that line, at

the most remarkable points, such monuments as are not likely to be quickly destroyed either by the influence of weather or violence."*

This memoir and map, addressed to Governor Light, were forwarded to the Colonial Office. On March 18th, 1840, the Foreign Office communicated its action upon them to the Colonial Office in the following terms:

"With reference to that part of your letter in which you state that Lord J. Russell considers it to be important that the boundaries of British Guiana should be ascertained and agreed upon if possible, and that Mr. Schomburgk's researches in those parts have qualified him in a peculiar manner to be of use, should the services of any person acquainted with the geography of British Guiana be required for fixing the boundaries of the British territory, I am to state to you, that the course of proceeding which Lord Palmerston would suggest for the consideration of Lord John Russell is, that a map of British Guiana should be made out *according to the boundaries described by Mr. Schomburgk*, that the said map should be accompanied by a memoir describing in detail the natural features which define and constitute *the boundaries in question;* and that copies of that map and memoir should be delivered to the governments of Venezuela, of Brazil, and of the Netherlands as a statement of the British claim."

Parliamentary Papers, 1840, vol. 34 (288), p. 17; also reprinted in Blue Book, Venezuela, No. 1 (1896), p. 185.

* This quotation is from the original in Parliamentary Papers, 1840, vol. 34. The copy in British Blue Book, Venezuela, No. 1 (1896), page 184, contains some inaccuracies.

We thus see that what the British Government did was to authorize the survey of the particular "*boundaries described* by Mr. Schomburgk." There was no suggestion that he be empowered to survey and lay out new boundaries of his own invention. So far as original investigation on his part was concerned, it was, by the express terms of the letter above quoted, limited to making a new map, and to preparing a "memoir describing in detail the natural features which define and constitute"—not new boundaries to be discovered—but "*the boundaries in question;*" that is to say, the boundaries which Schomburgk had described in his memoir.

The declared intentions of both Schomburgk and the British Foreign Office in this regard were undoubtedly adhered to in the surveys subsequently made. If Schomburgk's work did not, on its face, bear evidence of this fact, the recent statement of Lord Salisbury in his dispatch No. 190, of November 26, 1895, to Sir Julian Pauncefote that "*It is important to notice that Sir R. Schomburgk did not discover or invent any new boundaries*" would be quite sufficient to establish the fact.

Senate Doc. No. 54th Cong., 1st ss., p. 29 (reint).

It appears, therefore, by Schomburgk's own statements, and by the recent declaration of the British Government, that the Schomburgk line

was not an original line; but that it was a mere adjustment to newly discovered features of an old line already well known before Schomburgk began his surveys.

Having arrived at this conclusion, it is next important to ascertain what line it was which Schomburgk thus modified; for, naturally, his own line being but a modified form of another, the significance of that other must be ascertained, in order to get at the real significance of Schomburgk's modification of it. The particular modifications introduced by Schomburgk may have merits of their own, not possessed by the original line. To pass upon these points, however, would require a critical study of many historical facts whose examination is beyond the province of this paper. As mere modifications, however, it is difficult to see how they can avail to change the character of the line *as a whole*. Whatever principle may have determined the location of the original line, that same principle necessarily permeated the Schomburgk modification of it; whatever significance the original line may at bottom have had, that same significance necessarily attached to the new form of the same line presented by Schomburgk.

In the memorial of July 1st, 1839, the line which Schomburgk took as his model is

described, though the author is not mentioned. If, however, that memorial be read in connection with **JOHN ARROWSMITH'S** map of **1832**, it will be found that the description in the first tallies exactly with the westernmost of the two boundary lines appearing in the second.

Atlas, map 47.

If, furthermore, we refer to Schomburgk's "Special Report" to Governor Light, dated October 23d, 1841, we shall find the following express references to Jefferys, Arrowsmith, and Faden, or, what is the same thing, Thompson.

British Blue Book, Venezuela, No. 5 (1896), pp. 22–23.

"I have consulted two maps, likewise published in England during the last century, which may therefore be trusted, as Great Britain was not at that time interested in the question.

The first is the coast of Guayana from the Orinoco to the River Amazons, &c., London, published in 1783 by W. Faden, Geographer to the King, in which the Barima is stated as the western boundary of the Dutch according to their claim.

The second is a chart of Guayana from the West India Pilot by Thomas Jefferys, Geographer to the King, and published in London, 1798, in which the Barima River is stated to divide the Dutch and Spanish lands. * * *

Modern English geographers assume the Amacura as the boundary from whence the line of limit extends to the sources of the Canno Coyunni, and from thence to the River Cuyunni.

I refer Your Excellency to the maps published by Mr. Arrowsmith and others in the course of the last ten years."

In view of this direct reference to Arrowsmith, and of the agreement between his line and that described by Schomburgk, there can be no doubt that Arrowsmith's line was the line which Schomburgk had in mind when he wrote his memorial: it was the line which the British Government authorized Schomburgk to survey: it was the line which Schomburgk did survey; and it was the line which, in its modified form, has come to be known as the "Schomburgk Line." *As a whole*, therefore, and ignoring the merits or demerits of the particular modifications introduced by Schomburgk, his line stands exactly where the Arrowsmith line stood; the meaning which it thus derived is the same meaning which the Arrowsmith line had itself derived from Bouchenroeder's line; which Bouchenroeder's had derived from Jefferys' and Thompson's; which Jefferys' and Thompson's had derived from D'Anville's; and, finally, which D'Anville's had derived from Delisle's. It is hardly too much to say that the Schomburgk line would in all probability never have been proposed at all had it not been that Delisle, more than a hundred years before, had marked the eastern limits of Spanish encroachment upon savage Guiana; and that the error of D'Anville, in misinterpreting Delisle, had been perpetuated

down to Schomburgk's own time by a multitude of geographers and map makers who, without examination, accepted the authority of D'Anville's great name.

CRUZ CANO Y OLMEDILLA.

The maps heretofore examined, notwithstanding their apparent divergencies, may all be classed under the two heads of "Sanson" and "Delisle." The *Sanson* series reached its climax with Popple, and its end with Pownall. The *Delisle* line, passing successively through the hands of D'Anville, Thompson, Bouchenroeder, and Arrowsmith, came to find its final expression in the Schomburgk line. Passing, for the moment, by a number of independent authorities, who, after Delisle, published lines of their own, we come to the next group, represented by **JUAN DE LA CRUZ CANO Y OLMEDILLA.**

Atlas, map 50.

In **1775** this geographer published a large and detailed map of South America whereon he engraved a boundary, which, beginning at the mouth of the River Moruga, followed that river to its source, ran thence westerly to the source of the Pomeroon, thence southeasterly along the water parting separating the Pomeroon basin from the heads of small streams flowing

southward to the Cuyuni River; continuing thence, the line ran to the junction of the Cuyuni and Mazaruni rivers; and from that point followed the west bank of the Essequibo River to the south.

In the case of the early map makers, as also of Sanson and of Delisle, it has been necessary to point out that they had no intention of making *any* political division.

In the cases of Cruz Cano and of the other geographers who remain to be examined, there are no standards given by which their work may be judged, and all that the writer can do will be to point out as far as possible the principles which guided them. To go beyond this and to discuss the correctness or the applicability of the principles themselves would be to usurp the functions of the Commission itself.

Cruz Cano has left no written works to throw light upon his intentions. We know, however, in a general way, the means of knowledge which he had at command and the views which at that time were prevalent among Spanish local authorities.

Various Spanish documents published in the course of this investigation show that the Spaniards of the Orinoco recognized the Dutch as holding a post on the Moruca and occupying the

Cuyuni below its lowest cataracts, but denied both Dutch occupation and Dutch right beyond. Cruz Cano gave the Dutch up to the Moruca, and ran his line so as to give them the entire Pomeroon basin; struck the Sierra Imataca, and followed that; and cut across so as to give them a large island at the confluence of the Cuyuni and Mazaruni (perhaps his crude and much exaggerated notion of Kykoveral Island).

Within the region so marked off his map shows, on the Pomeroon, a Dutch settlement, "Nueva Middelburgh," and a fort, "F. de la Nueva Zelandia," and, on the Essequibo, "the Essequibo Fort," probably meant for Kykoveral. The boundary line which he drew around these settlements or posts would seem to indicate that his intention was to mark the limits of actual Dutch possession. Whether or not this was the true principle to apply is not within the province of this paper to discuss. All that the writer is called upon to do is to ascertain, if possible, what principle of division he followed.

Viewing his line as a definition of Dutch rights, various theories are conceivable as having been present in his mind. He may have regarded the settlements as dating from 1648, and as therefore having been confirmed by the Treaty of Munster: he may have considered

that they came into existence subsequent to that treaty, but that their long continuance conferred a title by prescription: or, again, he may have looked upon them as mere *de facto* settlements, established and maintained without warrant, and his line may have been nothing more than a tacit recognition of that fact. Whatever theory be adopted, one thing is very probable, and that is that, as a Spaniard, he looked upon Spain as the original discoverer of Guiana, and hence regarded the Dutch as intruders in that region. Any rights, therefore, which the Dutch might have acquired would, in Cruz Cano's eyes, have been in derogation of Spain's paramount title.

BONNE.

From Cruz Cano, who was followed by a host of map makers, we pass to another group represented by **BONNE**, Russell, Reid, Poirson, Myers, and others. These map makers denied to the Dutch any rights whatever west of the Essequibo, and some went so far as to carry Spanish jurisdiction to the east of that river.

Atlas, map 51.

That the boundaries thus laid down were intended to mark political divisions there can be no doubt. To discuss their merit, however, would be to go beyond the limits of this report.

BELLIN.

In going through the various groups of maps which have been discussed, we have passed by a number of geographers whose work shows independent thought, but who, for the most part, have had few, if any followers. Their lines differ considerably from each other; all seem, consciously or unconsciously, to have been guided, at least in part, by the principle of drainage basins. Without attempting to exhaust the list of these authorities, we find among them such men as **BELLIN**, Delamarche, **GÜSSEFELDT**, **HARTSINCK**, Canzler, **MANNERT**, D'Orbigny, Van Heuvel, and others.

Atlas, map 52.
Same, map 53.
Same, map 54.
Same, map 55.

Some of these, as, for instance, Bellin, made the Pomeroon the boundary at the coast, but carried their lines inland so as to mark the division between the Orinoco and Essequibo basins. In the case of Bellin, the Pomeroon is so drawn on his map that it might not have been unreasonably regarded by him as an independent stream, belonging neither to the Essequibo nor to the Orinoco, and very appropriately marking the natural limits of those basins along a comparatively flat coast.

Bellin, in his "Description de la Guiane" (1763), in connection with which the map here

referred to was published, disclaimed any intention of fixing the *true* boundaries. Yet those which he thus drew, however imperfect they may be, serve to illustrate the principle which evidently guided him, at least so far as the interior region was concerned.

DELAMARCHE'S map of **1792**, differing from that which he had published for Robert de Vaugondy about 1767, shows an abandonment of the Sanson line which had there appeared, and though rude and extremely faulty in its geography, is nevertheless an obvious effort to separate the Orinoco and Essequibo valleys along the water parting of the two basins, from the coast as far as the Caroni.

La Ronge's Atlas, Ameriquain Septentrioual, etc., Library of Congress.

Hartsinck, Mannert, D'Orbigny, and Van Heuvel all illustrate the principle to which reference has been made. Several of them, possibly under the influence of D'Anville, made their lines cross the Cuyuni River, leaving its head waters to the Spanish. With the exception of this feature of their maps, their lines show an evident desire to indicate the water parting between the Orinoco and Essequibo basins; and as explanatory of the reason why the head waters of the Cuyuni were by them given to the Spanish, it may be well to remember that at the time when their maps were published (all of

them after 1770), the undisturbed Spanish missions in the upper Cuyuni valley had long been established.

GUMILLA.

Before bringing this examination to a close, it may be well to refer briefly to a map published in 1741 by Father **GUMILLA**, in connection with his work on the Orinoco. The line there shown has sometimes been mistakenly referred to as a Spanish-Dutch boundary. It is, on its face, a boundary of the Province of the Catalonian Capuchin missions. There is nothing to show that in the mind of Gumilla this boundary coincided with the Spanish-Dutch frontier. For this reason, the line so drawn is without significance so far as this particular paper is concerned.

Atlas, map 56.

CONCLUSION.

This completes the study which I have made of the "Cartographical Testimony of Geographers." I have not continued beyond the time of Schomburgk, because what has since been published, with the exception of General Netscher's map of 1887, and possibly of one or two others, has been a mere repetition of earlier maps. As a result, we have seen what it was which led the various geographers to lay down the

particular lines appearing upon their maps; and it is apparent from this that they possess neither probative value nor even such authority as might belong to the result of a careful examination of historical and geographical facts, and the application of the rules of law to them. Upon *that* the determination of the true line of right must depend, and for that the Commission has now at its command a collection of materials far more important than any geographer had or than any one person knew of at former times.

Respectfully submitted.

S. MALLET-PREVOST.

REPORT

ON THE

MAPS OF THE ORINOCO-ESSEQUIBO REGION.

BY

JUSTIN WINSOR.

REPORT ON THE MAPS OF THE ORINOCO-ESSEQUIBO REGION.

By JUSTIN WINSOR.

CAMBRIDGE, MASS., *March 4, 1896.*

To the Commission appointed "To investigate and report upon the true divisional line between the Republic of Venezuela and British Guiana":

SIRS: In accordance with your instructions, I have the honor to submit the following report upon the maps of the Orinoco-Essequibo region:

The extreme claim of the Venezuelan government to extend its territory to the Essequibo river has little support from occupation, but is deducible from the right, assumed formerly by Spain, to hold the South American continent from the west eastward to the limit fixed by the Spanish understanding of the line of demarcation instituted by papal bull and by subsequent agreement in 1493–94, and which was still again moved in effect by the treaty of Münster in 1648.

The extreme claim of the English government depends on the right which Dutch possession of the lower Essequibo, confirmed by the treaty of 1814, carried to the watershed of that river and its affluents. This claim is reenforced, in part at least, by occupation.

These respective claims refer to the interior of the country; but the right to the coast region introduces other considerations, and depends exclusively on use and possession of that country by the Dutch and Spanish, respectively.

Though the bull of demarcation has sometimes affected boundary disputes in South America, particularly on the south of Brazil, no resource could be more unsatisfactory, even if the bull of Leo X in 1514 be not considered a practical annulment of that of Alexander VI. This bull of Leo allowed the Portuguese the right of possession as against heathen people wherever they might pursue their discoveries.

Under the Borgian decree of 1493 a meridian was to be fixed at the Azores and Verde islands—on the supposition that they were in the same longitude—from which a hundred leagues could be measured westward to reach a meridian which should be the true line of demarcation between the fields of Spanish and Portuguese explorations.

The fixing of the prime meridian was rendered difficult, inasmuch as the easternmost of the Azores and the westernmost of the Verde Islands were the only parts of those groups which had approximately the same longitude. There was accordingly an extreme range of 10 degrees from the most eastern to the most western island of the two archipelagoes. Since Spain and Portugal never agreed on the position of the prime meridian, and those two countries a year later determined at Tordesillas to carry the line 370 instead of 100 leagues westward, there was no final agreement between them as to the point reached by this measurement of 370 leagues. The

question was further complicated by their disagreement as to what constituted a league, and by their failure to unite on any one map on which to mark the distance. There was accordingly no ground for concurrent views then, nor has there been any in subsequent disputes over it. The fact is, the two Governments held different sets of views when American territory was in question in the earlier period; still other variant ones later, when it was a problem of the ownership of the Moluccas, on the other side of the globe; and there was another complete change of sides when, at a still later day, it again became a question of their respective rights to American soil.

Of the early maps, showing the line, the Cantino chart of 1502 gives the meridian according to the Portuguese views of that period; and two well-known maps of 1527 and 1529 (Ribero's) mark the Spanish claim in respect to the way in which the demarcation cut north and south through South America. These respective Portuguese and Spanish views—to speak roughly—left in dispute the region east of the seventy mouths of the Orinoco, and west of a position not far from the estuary of the Amazon. It is accordingly not easy to see why Mr. Calcaño, in behalf of the Venezuelan Government, in 1876, spoke of the bull of demarcation as "decisive" when it was issued. No definition of bounds could be less stable. If under the "primitive right" thus conferred, Spain lost her rights from near the mouth of the Amazon westward by the occupation of the Guianas by other peoples, as was conceded by her in 1648, it is not

easy to see why the line of the Essequibo is now set up as the limit which Venezuela should recognize of such occupation westward, when it is notorious that the Dutch held both banks of the Essequibo and territory still farther west. It is further not apparent, when the Venezuelan Government cites various authorities to place the Dutch at the Essequibo, that these authorities, as a rule, meant to imply that the Dutch were restricted to the eastern bank of that river.

This disputed country, between the Orinoco and the Essequibo, was not possessed by anyone, as a whole, during the better part of the sixteenth century. The strong African current, which sped westerly along the coast, and the ferocious Caribs on the shore, did much to prevent acquaintance with the country. The sight of gold upon the persons of the natives about the Gulf of Paria which Columbus had in 1498, instigated a passion which some years later drew attention to the region back of the coast as the site of a supposed lake and golden city. By 1530 the search for this fabled El Dorado had begun from the coast inland, and after the exploration of the Amazon by Orellana in 1543, it was pursued from the side of that river. At a later day the Spanish founded St. Thomas on the right bank of the Orinoco. The Dutch began to appear on the coast. When Raleigh ascended the Orinoco in 1595, making the last of the distinctive expeditions toward the fabled city of Manoa, he reported that both Dutch and Spanish were trading with the Indians upon the Barima.

Raleigh's manuscript map, preserved in the British Museum,

was first introduced to scholars by Dr. Kohl when he was at work in this country on the Early American Cartography, forty years ago; but it was only published in 1892, when a facsimile of it was issued in the Hamburgische Festschrift zur Erinnerung an die Entdeckung Americas (Hamburg, 1892). This map shows settlements, presumably Spanish, on both sides of the Orinoco. Raleigh's evidence, however, of conditions at a distance from the route he followed in ascending the river was dependent on Spanish and Indian reports. He gives no settlements, whether European, savage, or missionary, farther east than the peninsula between the Morocco and Pomeroon rivers. The following year, 1596, the Dutch are known to have made a lodgment on the Essequibo, from which they were driven by the Spaniards; but when the Dutch returned in 1602 and started permanent occupation it does not appear that they dislodged any Spanish.

A lack of definite knowledge of the coast up to the coming of Raleigh is apparent from the maps for the previous five and twenty years. Abraham Ortell, or, as usually latinized, Ortelius (d. 1598), the Dutch geographer and the first to compile a general atlas, had indicated in 1570 what was probably the condition of the country when he styles it "Caribana," or the land of the Caribs. He placed the word "Caribes" at the same time near the mouth of the Orinoco, a fashion which was followed for a long time in the maps. Rascicotti's map in 1583 calls the Orinoco region "Paria," a name which Columbus had learned on the coast.

Raleigh, so far as known, first applied the word "Guiana"

in his map of 1595 to this country, making the "Valley of Guiana" the east part of the watershed of the fabulous lake. Four years later (1599) Molineaux used it to designate all the region lying between the coast and the Amazon; and in the same year Jodocus Hondius, a famous Flemish map maker (d. 1611), first placed in a published map the fabled lake and city, which Raleigh's narrative had made notorious.

The name "Guiana," however, did not displace Ortelius' designation of "Caribana" as belonging to the coast region, and it is so used by Hondius in 1623 and by the English geographer, Speed, in his Prospect of the Most Famous Parts of the World, in editions printed in 1626, 1630, 1631, etc.

These two words, "Caribana" and "Guiana," are found stretched athwart the country between the Orinoco and Amazon in many maps of the seventeenth century as indicating a region beyond Spanish jurisdiction. The term "Guiana" is usually given in larger letters than "Caribana," and the latter is always placed nearer the coast. A few maps, like that of Hoeius (1640), omit the "Caribana."

Early in the seventeenth century, when the Dutch had formed permanent settlements on the Essequibo, there began to appear among the Dutch cartographers some recognition of Spanish settlements on the right bank of the Orinoco, in its lower reaches. Blaeuw (d. 1638), the leading Dutch cartographer of the time, carries the legend "Nueva Andalusia" across the Orinoco near its deltas, but he uses instead in some of his maps the word "Paria," both designations standing for the Spanish province on the Orinoco. Jodocus Hondius also

gives to the Spaniards a narrow strip of territory along the east bank of that river and below St. Thomas. This extent of Spanish territory was recognized in later editions (1646, etc.) of the Blaeuw atlas.

The plates of Mercator's atlas fell in 1604 into the hands of Jodocus Hondius (d. 1611), and its publication was continued by him as the Mercator-Hondius Atlas. Later editions were edited by Hendrick Hondius (d. 1644) and Johannes Jansson (d. 1666), respectively the son and son-in-law of Jodocus.

These two rival atlases of the Flemish and Dutch schools stand for the most learned results in geography for the period before and after the peace of Westphalia in 1648. They may therefore be said to reflect the prevailing views in the north of Europe of what Spain and Holland respectively possessed in South America, where their possessions were contiguous, although the treaty itself gives no exact bounds of the regions which they mutually guaranteed to each other. In recognizing the Dutch on the Essequibo, the treaty can not fairly be interpreted as confining them to the east bank of that river any more than the recognition of the Spaniards on the Orinoco can be held to restrict their rights to its western bank.

Not only the maps already cited, but others of the seventeenth century (yet to be mentioned), indicate that much the greater part of the territory toward the Orinoco was held to be Dutch. Indeed, some later maps of the Blaeuw establishment (1662, 1665, etc.) fail to give the Spanish any foothold

east of the Orinoco. No rule, however, among the Dutch maps is wholly constant.

Nicolas Visscher, for instance, in his latest maps (1651–52) seems to extend Guiana, with the subordinated Caribana, from the Amazon to the Orinoco; but in 1662, after his death (1652), the maps published with his name extend "Nueva Andalusia" as the easternmost Spanish province across the lower Orinoco, and carry the western bounds of Caribana and Guiana along a height of land parallel to the Orinoco, much like the present extreme English claim.

Another Dutch cartographer, Danckert, follows the conventional usage with his "Caribana" and "Guiana." Goos, a Dutch chart maker in 1666, seems to make the Orinoco the dividing line. Montanus (Pieter van den Bergh in his vernacular), another Dutch geographer, was allied to the Hondius family, having married a sister of Jodocus. His great work on the New World, with accompanying maps, was extensively used throughout Europe in translations. In this the map of the two Americas carries "Nueva Andalusia" across the Orinoco, placing Guiana just to the east of that province. In his special map of Guiana, Paria, which represents the Spanish possessions, is placed wholly west of the Orinoco. The "Essekebe" is a mere coast stream, as Raleigh and Blaeuw had already drawn it.

There was the same variation in the plates of Frederik de Witt, who succeeded to the Blaeuw establishment, but sometimes published under the Ottens imprint. In his map we find Caribana made subordinate to Guiana, or, as he at times calls

it, Surinam, which is made sometimes to stretch east from the Orinoco and sometimes to give place on the lower Orinoco to a corner of "Nova Andalusia."

These Dutch cartographers may perhaps be considered prejudiced against the Spaniards; and we may turn to the French, their contemporaries, for views more favorable to Spain; but we shall not find them. Nicolas Sanson (d. 1667), was the most distinguished map maker in his country. In his Amérique Méridional, published "chez l'auteur" in 1650, he carries "Nouveau Andalusia" across the Lower Orinoco, and assigns a region east of it on the coast to the "Caribes." Guiana with its fanciful lake is more inland, but apparently bounded by the Orinoco in its upper parts. In his Guiane et Caribane (1656), he makes the dividing line strike south from near the mouth of the Orinoco till it touches and then follows the divide about the sources of the Essequibo. In the same year (1657), in his Terre Ferme, he distinctly allows the Dutch to extend their claim to the Amacura, placing "Caribes" near Point Barima. In his general map of South America he stretches Caribana as a coast region well up to the Orinoco, and makes Guiana abut on that river farther up, as the German J. B. Homann did in a map published at Nuremberg. An Amsterdam edition of Sanson gives the Dutch all east of the Orinoco. A map of the course of the Amazon, based on the Relation of F. Chr. d'Acugnas, purporting to be made by Sanson and published in London in 1698, makes New Andalusia cross the Lower Orinoco.

A similar range of views, allowing the Spanish but scant

hold on the east bank of the Orinoco, was maintained by the sons, successors of Sanson (1679, etc.), and by Jaillot likewise succeeding to the Sanson plates, and using both the imprint of London and Amsterdam, as well as Paris. Again in a Paris map of South America, dedicated to the King, Jaillot adopts the due south line, from near the Amacura, which bends as it gets away from the coast so as to inclose the watershed of the Essequibo. Another French cartographer, P. du Val (1676–1682), keeps the Spanish entirely west of the Orinoco.

We must not at this period look for anything but borrowed views among the English cartographers. Indeed, Heylyn in his Cosmographie (1656–1677) adopts Visscher's map, which bounds Guiana by the Orinoco. Richard Blome (1669, etc.) in his Description of the World shows two maps. In one he puts the "Caribs" on the coast east of the Orinoco; in the other he carries New Andalusia east to about the line of the Waine river. In both, Guiana is put farther south, apparently extending from the Orinoco to the Amazon.

This review of the Dutch, Flemish, French, German, and English maps throughout a period that might be held to interpret the undefined bounds of the treaty of Münster (1648) indicates that Spain hardly pressed her claim east of the Orinoco, except near its deltas, and there to no great extent; though the Venezuelan authorities in recent years have contended that the "usurpations which Spain made legal by the Münster treaty" were all east of the Essequibo, and indicated to that extent an abatement of her claim under the bull of demarcation.

Charles II of Spain died in 1700, and it later became a part of the treaty of Utrecht, in 1713, that the integrity of the Spanish possessions in America, no bounds being mentioned, at the date of that monarch's death should be guaranteed by England. The maps we have already surveyed have shown the prevailing conception of the Spanish occupation on the northern coasts of South America in the closing years of the seventeenth century, and it remains to ascertain if the eighteenth century, as it went on, marked any change in that conception.

The cartographers of the period, succeeding to those already examined, will now be followed in the same grouping of nationalities.

To begin with the Dutch. A popular Leyden geographer, Vander Aa (d. about 1730), issued a series of ornate maps, forming later an atlas, in which, as a rule, he kept the Spanish on the western side of the Orinoco, as in his special map of Guiana, though he occasionally recognized New Andalusia as crossing the Lower Orinoco. In an edition of his maps issued at Amsterdam by Covens and Mortier, Caribana is bounded on the west by the Orinoco. Schenk, an Amsterdam map maker, who sometimes used Visscher's old drafts, made much the same representations. Combination maps under the names of Valk and Schenk give the Orinoco watershed only to the Spanish, and run the dividing line south from the neighborhood of the Amacura, and throw the valley of the Essequibo on the Dutch side. Ottens' Dutch atlas (1745) shows a similar vacillation; but a map by Jaillot, published

by Ottens, carries the line south from the Amacura and around the sources of the Essequibo. A Dutch map by De Leth allows Spain a small region east of the deltas of the Orinoco.

The good will of the old Blaeuw establishment, passing to De Witt, had descended to Covens and Mortier in Amsterdam. This house published what was known as the Allard Atlas, which either puts the line at the Orinoco or traces it from near the Amacura southerly. One of their maps in 1757 gave a line which began in the Amacura region and then ran athwart the Cayuni. Maps published by them and drawn by N. Witsen give only a narrow strip along the Orinoco to Spain.

No maps during the earlier half of the eighteenth century had wider recognition throughout Europe than those of Guillaume Delisle (died, 1726), who had been in his day the royal geographer of France. In his earliest map (1700) he seems to have been confused in his views, and to have considered "Guiane ou Nouvelle Andalusia" one and the same, for he runs that legend across the Orinoco and athwart the Guiana region, and this map was copied in Augsburg by Weigel. This confusion was quickly dispelled, for in a map published by himself in 1703, Terre Ferme, he allows the Spanish nothing on the east side of the Orinoco, except the town of St. Thomas, which he marks "aux Espagnols," to signify a Spanish post in territory otherwise Dutch. This map was republished by Mortier at Amsterdam. Not long before his death Delisle published at Paris (1722) a map which was reissued at Amsterdam,

in which he draws the line from the mouth of the Orinoco, and then sweeps it southerly in a way to give the Dutch the watershed of the Essequibo.

The royal Belgian geographer (1701–1716), Nicolas de Fer, divided the Dutch from the Spanish by the Orinoco. D'Anville, the most influential geographer of his day, kept the Dutch to the valley of the Essequibo, but in 1748 in a map published "chez l'auteur" he ran the line southerly from the mouth of the Orinoco, making the division dots cross the Cayuni, a method of interpretation which under the prestige of his name was later to become usual. Robert de Vaugondy, who succeeded to the interests of Sanson's sons, and Bonne, another French geographer, followed the same method. Janvier (1762) gives nothing more significant than putting the name "Goyane" across the Essequibo.

The leading cartographer in Germany, J. B. Homann, died in 1724, but his business was pursued after that date by his heirs. In some of their maps, as in his "America" (1746), the line passes up the Orinoco, beyond St. Thomas, which is marked "Sub Hispanis," after a way that Delisle had practiced in French, and then sweeps boldly into the region west of the Orinoco, throwing both banks into the Dutch province. This is repeated in a map engraved by the Homann heirs and published by J. de Sandrart at Nuremberg. So far as I know, this is the only instance of giving the Dutch any portion of the country west of the Orinoco. Another Augsburg establishment, conducted by Seütter, kept the line along the Orinoco, dividing the country east of that river into the conventional Caribana and Guiana.

The English were still copiers. Halley's "Tabula Nautica" (1700) makes the Orinoco separate Venezuela from Guiana, as does the Atlas Maritimus (London, 1702, 1728, etc.), published by Mount and Page. Senex (1721) puts Caribana between the Orinoco and the Amazon. Herman Moll (1726, etc.), in a map showing the possessions of the South Sea Company, and on other plates, draws the line on the Orinoco, sometimes calling the Dutch possessions Surinam and at other times Guiana; but in a map of the world, dedicated to George II, he allows New Andalusia to cross the Lower Orinoco. Popple sometimes throws the watershed of the Orinoco into New Andalusia and sometimes draws the line strictly along that river itself. Emanuel Bowen (1744, etc.) generally adopts the Orinoco as the line.

Advocates of a line drawn south from the Amacura or Point Barima, and sometimes made to curve about the valley of the Essequibo, are found in Thomas Kitchin (1755), in a map made for Postlethwayt's Dictionary of Commerce, in a map of the world by Bowles, and in Thomas Jefferys' Atlas maps (1753, 1768, etc.).

The foregoing survey of the maps from 1700 down to about 1770 shows, with those of earlier date, that upon the points at issue the views of the great majority of cartographers in Europe had changed little for a hundred and fifty years. The principal Spanish account of this region meanwhile was Padre José Gumilla's Historia Natural . . . del Rio Orinoco (Madrid, 2d ed., 1745; again 1758; Barcelona, 1781). All the editions have the same map, which marks off a small territory

bordering on the deltas of the Orinoco and east of them, as "Missiones de PP. Capuchinos Catalanes." There is nothing Spanish east of this.

For the coast region the Dutch were usually allowed to possess up to the neighborhood of the mouth of the Orinoco, and their Government had, indeed, in 1621 created the West India Company, which was expected to cover in its operations this coast region west to the Orinoco; and in 1669 grants were made by it on that understanding. Nevertheless, there was growing up during the middle years of the eighteenth century a more restricted notion of the rights of the Dutch, arising, perhaps, from an increasing trade on the Pomeroon, near the mouth of which they had built a fort at Cape Nassau, and on which they had established settlements at New Zealand and New Middelburg during the latter half of the seventeenth century. About the middle of the next century some French cartographers confine the Dutch to the Pomeroon valley as their farthest western extension. Some draw the dividing line on the Essequibo, but make it diverge near the confluence of the Cayuni, and so reach the coast in a way to include the Pomeroon country. Jaillot did so in his Atlas Universel.

Nicolas Bellin, later a royal hydrographer, in a map published at The Hague in 1750, does not allow the Spanish to have any claim east of the Orinoco. In 1763 he prepared, by order of the Duc de Choiseul, a Description Géographique de la Guyane, and in the map of Guiana, in this publication, he runs the line from the sea by the Pomeroon and farther

south twists it so as to include on the Dutch side the valley of the Essequibo.

Bonne, the hydrographer of the French marine, drew a line from the Pomeroon in a map which he supplied to the Abbé Raynal. A few other French geographers, like Condamine, and the Dictionnaire et Encyclopedie, published at Paris in 1757, contract the Dutch rights still more and allow them nothing west of the Essequibo.

These references show that the French by the middle of the eighteenth century had begun to recognize that Dutch occupation was not carried in a permanent way beyond the Morocco at the farthest, however earlier they may have had transient occupation toward the Orinoco. They may have been influenced by Spanish representation to the same end, which, however, I have not found, earlier than the beginning of the last quarter of the century, expressed in Spanish maps.

The great Mapa de America Méridional of Don Juan de la Cruz Cano y Olmedilla was published at Madrid in 1775. It was the map used by Humboldt, and his copy is now in the collection of the American Geographical Society in New York. It accords with the view, already taken by the French, as to the extent of the Dutch occupation. It carries the divisionary line from the upper Essequibo along the Cayuni, and thence diverging by the Tapura to the Morocco reaches the coast, throwing the Pomeroon region wholly within the Dutch province. When the English geographer, Faden, re-engraved this map in 1779 he accepted this line. Later Spanish maps, like the La Nouvelle Andalusie, Madrid, 1779,

make fair acknowledgment of the Dutch occupation of, if not sovereignty over, this Pomeroon region; but a Madrid map of Lopez published in 1777 carried the Spanish rights to the Essequibo. Perhaps the chief Spanish authority of this time is Antonio de Alcedo's Diccionario geográfico-histórico de las Indias Occidentales, published in five volumes at Madrid in 1786–1789, and in London, in an English version by G. A. Thompson, in 1812–1815. He gives the Cayuni and its branches to the Dutch, saying that their traders upon those streams were protected by the Caribs, and he allows to the same people the Pomeroon country. Here was a Spanish acknowledgment that the Dutch had not withdrawn in the interior, if they had on the coast.

In 1780 a Spanish royal order recognizes the Dutch bounds as commencing "at the windward of the fall of the Orinoco into the sea." The order also describes a Dutch post on the Morocco—a stream just west of the Pomeroon—which more definitely determines the bounds intended to be assigned to the Dutch possession. This construction necessarily interprets "windward" as at some distance east of the Orinoco, an interpretation not to be considered violently forced.

It is certain, however, that the Pomeroon theory of bounding the Dutch had not yet induced the English cartographers, now become the most active in Europe, to depart from the older view. This earlier conception, as we have seen, began the line at the Amacura, and either thence carried it round the sources of the western affluents of the Essequibo or bore it in a straight line, in a general southerly direction, to the most

inland point of what was known as Guiana. This last direction of the line had become the more common among the conservative English map makers of the last quarter of the last century. We find it in sundry London editions of D'Anville, like those of Sayer and Bennett (1775, 1777, etc.), where earlier editions issued by the author himself were followed. We encounter it also in an Italian edition of the same French geographer, issued at Venice in 1779. This straight southerly line cut the course of the Cayuni and gave its upper waters to Spain, where for some time Spanish priests had been holding mission stations. Jefferys' distinctly English map of South America in his American Atlas (London, 1775, 1776, etc.) was professedly based on D'Anville and gave the same line, and in some of his plates it is marked as beginning just east of "Cape Breme, according to Dutch pilots." In the map of the world issued conjointly by Jefferys and Faden in 1775 the Dutch are allowed all east of the Orinoco, as also in an atlas by Thomas Kitchin in 1782. The map which Thomas Kitchin also made for Robertson's America (1777) adopts the Barima line.

In 1781 a map of the coast of Guiana, issued in London by Sayer and Bennett, shows Dutch settlements on the Pomeroon, but carries the rights of that people to the Amacura "which divides the Dutch from the the Spanish settlements." Similar data are found in a map drawn from Capt. Edward Thompson's observations, and published in London in 1783.

There is a difficulty in determining the true position of the Amacura, as then understood, since the maps often give it

more than one direction. It is now known to be an affluent of the Orinoco, parallel to, and a short distance above, the Barima; but it is found on early maps occasionally as a supplemental mouth of the Orinoco, and farther east than its main mouth. This double view may have arisen from what is now claimed that in some states of the water the Barima flows not into the Orinoco, but in a reversed way carries the waters of the Orinoco itself into the sea. The Amacura may possibly have been considered a part of the interlacing of confluent streams which thrid the coast region west of the Morocco and fall by several outlets into the ocean. In Blaeuw's maps in the early part of the seventeenth century, and again so late as 1781 in Bew's map of the Dutch settlements, this extreme eastern position of the Amacura is recognized and the latter cartographer begins the dividing line at *his* Amacura. A map by Thomas Sayer, London, 1789, also starts the line at the Amacura.

As a further variation in the English maps of this period, we find the line in Guthrie's System of Geography (1785–1792) beginning apparently at the Waine river, though in Carey's American edition of the same work it starts rather from the Pomeroon river.

In the French maps of this latter part of the eighteenth century we find the conventional straight line, beginning near the mouth of the Orinoco, adopted by Brion de la Tour (Paris, 1780), Janvier (Paris, 1784), and Moithey (Paris, 1785); but in the world maps of the first (improved upon Jaillot, 1782) and of the last (1785) the line is carried along the Orinoco.

We find the Dutch claim much more restricted in the Atlas Nouveau (Paris, 1782) of Mentelle and Chanlaire, who draw the line more easterly in its generally southern direction. The later "Guyane" of the same cartographers confine the Dutch to the Pomeroon country. A few French geographers of less importance fix the line at the Waine. A large map of South America in the Atlas Nouveau (1782) gives the Pomeroon and Essequibo line, and the Encyclopédie Méthodique (1787) pushes the Dutch wholly east of the Essequibo. Dezauche, the representative at this time (1782) of the school of Delisle and the later Buache, keeps the Spanish west of the Orinoco.

In 1791 the extradition treaty of Holland and Spain, relative to the surrendering of fugitives, recognizes the Spanish hold on the Orinoco and the Dutch possession of the Essequibo. The Venezuelans claim that in the absence of precise bounds the Dutch by this treaty were considered to be on the eastern side of the Essequibo. By the same reasoning now as in 1648 the Dutch could have claimed that the Spanish were kept on the west side of the Orinoco. It is much more in accordance with public law to hold that in such an absence of fixed limits the possession of the lower courses of the Orinoco and Essequibo gave, respectively, to Spain and Holland jurisdiction over the watershed of those rivers, as against the heathen.

From 1791 to 1814, when Holland finally gave to the English what title she had in this country west of the Essequibo, there does not appear to be any printed record of an understanding, common to both, of their respective bounds. For a part of this time the Dutch were, by the fortunes of war,

under the protection of the English, and this must not be forgotten in considering the line as drawn by British cartographers in that interval. The notion, among the English cartographers at least, had at this time died out, that the Orinoco was the required divisionary line, though The English Pilot (1794) still drew it in that way.

Jefferys was the most conspicuous and constant advocate of a line traced from the Barima (1795, 1799, etc.); but such a line is also found in lesser authorities, like Crutwell's Gazetteer (1797), Robert Wilkinson's General Atlas (1800), Smith's Atlas (1809), Dunn's Atlas, etc.

A preponderance of opinion, however, among English map makers before and after 1800 for some years favored a less extension of the Dutch claim. Kitchin in 1798 pushed the Dutch rights to the Waine only. Neele's General Atlas (1814, 1819) confined it to the Essequibo. The general conception, however, gave the Dutch the Pomeroon valley in addition to the Essequibo line. This is shown in the map accompanying the Voyage to the Demerary of Henry Bolingbroke (1807), whose map is repeated in a German edition published at Leipzig in 1812; in Samuel Dunn's Atlas in his map of South America (1810), and in Faden's plates (1798, etc.). It was also the view taken at this time in the Edinburgh, Rees, Metropolitana, and Britannica (supplement 1812) encyclopedias and in the Edinburgh (1804) and other gazetteers. In J. G. Stedman's Narrative of an Expedition Against the Revolted Negroes of Surinam, 1772–1777 (London, 1796), we find a line which, starting at the coast

between the Essequibo and the Pomeroon, cuts the Cayuni valley farther south.

The great English map of Aaron Arrowsmith (1794) had carried the rights of Spain even east of the upper parts of the Essequibo; but in a Nuremberg edition by Schneider and Weigel in 1797 the Dutch claim was pushed to the mouth of the Orinoco; and in the later editions (1806, 1811, 1815, etc.) of Arrowsmith's English publications he fell into the view of those who carried the line by the Pomeroon and the Essequibo.

The American maps of this period are hardly of importance, as they merely follow the English varieties; but we find the line drawn on the Orinoco in Osgood Carleton's American Pilot (Boston, 1791); on the Waine in Carey's American Atlas (Philadelphia, 1795); and on the Essequibo in a map of Caracas, published at Philadelphia, in John Reid's American Atlas (New York, 1796), and in a popular edition of Arrowsmith, issued at Philadelphia in 1804.

With few exceptions, like the map of the Abbé Clouet (Paris, 1793), who has the old conventional straight line from the mouth of the Orinoco, the French maps near 1800 give the Dutch the valley of the Pomeroon and the line of the Essequibo higher up. Bonne, who had taken that view in 1780, did not twenty years later (1800), in a map in De la Croix's Geographie, allow the Dutch to cross the Essequibo. C. F. Delamarche, who had succeeded to Robert Vaugondy, in his map of America (1792–1795) included the Pomeroon region and gave also to the Dutch a large sweep into the valley of the Cayuni. The Pomeroon was also allowed to the Dutch by La Rochette (1807) and Malte Brun (1812).

If one can judge from the position of the words "Guiane Hollandaise" in the map attached to Daniel Lescallier's La Guiane (Paris, 1798), the valley of the Essequibo is given to the Dutch.

The German maps for some years previous to the treaty of 1814 give much the same prominence to the Pomeroon and Essequibo line. The division is so made in a map by Güssefeldt issued at the Homann establishment in Augsburg (1796), in one by Conrad Mannert (Nuremberg, 1803), and in others printed at the Geographical Institute at Weimar in 1814.

Some of the German maps, however, clung still to the old conventional line, running southerly from the mouth of the Orinoco. Such is a map in Campen's Entdeckung von Amerika (Hamburg, 1780); in a Vienna map of Von Reilly, professedly following D'Anville (1795); an earlier map of Mannert (Nuremberg, 1796), and another Vienna map by P. J. Schalbacher (1800). D. F. Sotzmann, who in a map published at Berlin in 1785 had given the Dutch all east of the Orinoco, in another issued at Nuremberg in 1807 kept the Dutch line near the coast in carrying it up to the mouth of the Orinoco. Schropp of Berlin (1801) and Poirson (Weimar, 1814) confine the "Hollandische Colonie" to the east of the Essequibo.

The chief authority upon the condition of this disputed region, just before the surrender by Holland, is F. Depons' Voyage dans l'Amérique Méridionale, 1801–1804 (Paris, 1806, in three volumes). His map was drawn by Poirson in 1805 and shows a line running from the Morocco to the Cayuni so as to give the Dutch the valley of the Pomeroon. He explains

in his text that the Dutch are properly confined by the Essequibo (as is marked in the English translation, 1807), but that they have "clandestinely carried their limits to Cape Nassau." He says that the Caribs have kept the Spaniards from the coast country; and though he allows the banks of the Amacura to be occupied by Catalonian Capuchins, he asserts that the Spanish have no settlements on the Orinoco till St. Thomas is reached—a town originally founded, as he says, in 1586, 50 leagues from the mouth of the river, but to be safer from the inroads of the Dutch and Caribs, removed in 1764 forty leagues farther upstream. He acknowledges that the Dutch have a military station on the Cayuni river, and places twenty-seven mission stations of the Capuchins over the Essequibo divide and in the Caroni country.

Humboldt at this time says that the Dutch ran their line from the Barima to the Cayuni, and we find it so delineated in F. von Bouchenroeder's Map of the Dutch Colonies (1798). This map shows the laying out of lots along the coast west of the Essequibo to the Morocco, and marks the sites of ancient Dutch posts and ruins of such on the upper waters of the Pomeroon. Against a post at the mouth of the Barima, he says: "Ancien poste Hollandaise Sur les limites des possessions Espagnols." He runs the dividing line from that point to the Cayuni and across it. His large map of "British Guiana," adding other surveys in 1802, was later published in London by Wyld.

Thus it appears that the cartographical evidence of what it was thought England received and Holland gave by the treaty

of 1814 goes to show that while almost any view could find support of some kind, there were two main divisionary lines which had strong but conflicting support. Of these one began at the Barima and crossed the Cayuni and finally met the Essequibo The other, inclosing the valley of the Pomeroon and sometimes that of the Morocco, crossed the Cayuni near its confluence with the Essequibo and then followed that river south. The latter view seemed to recognize actual occupation at that time, while the Barima line was a survival of older views, which had been partially, at least, in those days reinforced by occasional use of the territory.

In pursuing my investigations to this point I have examined two hundred and fifty maps or more, including groups of the World, the Western Hemisphere, South America, north parts of South America, and more restricted areas about the region in dispute. I have not enumerated all of these maps, for I have confined my notices to such as had some significance, either as authorities or because they presented confirmation or change of views.

In running over the notes I have made of later maps, following the treaty of 1814, I find the earlier ones among the English adhering as a rule to the Pomeroon and Essequibo line. A few may be noted:

1819. John Thompson's Atlas.
1825. Captain Cochrane's Journal.
1830. Neele's Atlas.
1830. Hall's Atlas.
Etc., etc.

After 1830 the Barima line is generally accepted:

1832. Starling's Geographical Annual.

1841. Schomburgk's map.

1844. Society for the Diffusion of Useful Knowledge. Atlas.

1849. Findlay's Junior Atlas.

1869. Keith Johnston's Atlas.

1873. Bartholomew's International Atlas.

Etc., etc.

The French maps held to the Pomeroon line much longer than the English:

1826. Brué, Atlas Universel.

1827. Vandermaelen's Atlas.

1834. Malte Brun.

Etc., etc.

Emile Levasseur's Grand Atlas (Paris, 1891) falls in with the Barima view.

The recent German cartographers, Kiepert and Stieler, also favor the Barima line.

In 1840 the Atlas de la republica de Venezuela per Antonio Codazzi (Paris) allowed the Pomeroon region to have been wrested from Venezuelan control; but an edition of 1876, issued for a political purpose, denies the rightful occupation of the Pomeroon region by the English.

In thus tracing the history of the prevailing conception as to a line dividing the Dutch and Spanish possessions in Guiana, I have depended largely upon the cartography of the region in dispute, as studied in the principal European centers, for

such knowledge. In doing so, I have pursued the only course which seems possible in the solution of the questions involved, in the absence of precise treaty limitations of bounds. This cartographical survey makes it clear, I think, that there is, and that there can be, no "true divisionary line," in the sense of indubitable; but it also renders manifest the possibility of an equitable line, true to the interests of both contestants, taken in conjunction.

For the interior of the country the question presents problems in public law, common in periods of exploration, and which the United States has successfully solved in our own boundary controversies, both as a nation and as colonies. The principle which gives, as against heathen, the right to the watershed of a river to a nation holding its mouth has not been of unusual application in American history.

When Cartier, in 1535, etc., ascended the St. Lawrence he secured to the French Crown the watershed of that great river and connecting lakes, except so far as a Christian people contested it in the valleys of Lake Champlain and Lake Ontario, and this condition obtained till the English conquest was secured by the treaty of 1763.

When La Salle descended the Mississippi it was for the express purpose of finding its outflow and securing its mouth for the French Crown. That act in 1682 made good the French possession of another great valley, till it was contested by Christian English in the Ohio Basin, and a war was brought on which ultimately confined the French rights to the country west of the main stream.

When a Boston ship discovered the mouth of the Columbia in 1792, and an American party explored its course in 1804–1806, and an American fur company established a post at its mouth in 1811, the United States claimed a jurisdiction over its watershed, which had to be abridged because another Christian people contested it above the forty-ninth parallel.

By parity of reasoning, the right of the Dutch to the upper waters of the western affluents of the Essequibo would hold good in public law, except against occupation by a Christian people. It would thus appear that the mission stations of the Spanish priests south and west of the Cayuni constitute ground for an abatement of the Dutch claim, so far as Spanish occupation of that region can be shown.

The proofs of this occupation, I suspect, are difficult to find in print, and I should look for them in the Vatican archives or in the collections of the College for the Propagation of the Faith in Rome (in which important material for the early history of Spanish America can be found), or in the central offices of the priestly orders which have had missions between the Cayuni and the Caroni. An enumeration of such sources was given recently in the New York Times, together with a sketch map said to have been made by the missionaries about 1770, which indicates their stations in the region I have mentioned.

The question of vested interests appears to me to be an important one in the contested boundary, to be solved by allowing possession beyond an equitable line and giving compensation of some sort therefor where property and homes have been established by either contestant since 1814. This

compensation was made in a marked way in the settlement, in 1842, of our own boundary by the forty-fifth parallel, when Fort Chambly, found to have been built on Canadian territory, was confirmed to the United States.

The transference of the colony of Essequibo, in 1814, to England, without expression of limits, is mated in the quit-claim given by Napoleon in 1803 of the great territory of Louisiana to the United States. This cession made it incumbent on the American Government to ascertain its limits. The dispute for a long time prevailed among our publicists and historians whether that cession of Louisiana was bounded by the Rocky mountains or the Pacific ocean.

The question of the coast region between the Orinoco and the Essequibo is not illuminated by so many established principles. It embraces the question of rights, not always exclusive, which have been acquired by using the country for traffic with the natives, and of a possession by fixed posts, not always stable. There may be justice in conceding a reasonably continuous Dutch jurisdiction as far west as the line of the Morocco; but beyond that, during the Dutch period, nothing more can well be claimed than a preponderating occupancy for purposes of trade by the Dutch, friends of the Caribs, and a pretty general exclusion of the Spanish, foes of the Caribs, at the same time, notwithstanding occasional ventures of traders and some military inroads by subjects of Spain.

Respectfully submitted.

JUSTIN WINSOR.

REPORT ON MAPS FROM OFFICIAL SOURCES.

BY

GEORGE LINCOLN BURR.

REPORT ON MAPS FROM OFFICIAL SOURCES.

By George Lincoln Burr.

In submitting the maps, official or semi-official, gathered by me for the Commission during my researches in the Netherlands, it is my duty to report also what I have been able to learn as to their date, their authorship, and their sources; and I am asked to include in this report a statement of what is known of the maps of a similar character which have else come into the hands of the Commission.

What gives to such maps as a class a different value from those of private geographers and publishers is their connection with the political authorities whose right it is to define territorial boundaries or to assert territorial claims. It is therefore of importance to know just how far these authorities are responsible for their production or have sanctioned their results. To this question I have directed my study.

I. DUTCH MAPS.

The earliest maps of the Guiana region which are known to have been made on the spot by Dutchmen, or even based upon knowledge gained in any part by Dutchmen, are the two ascribed to the year 1598, of which I herewith submit tracings.[1] They bear on their face no explicit evidence, either of date or of authorship, except the inscription on one of them, in a hand of the time, "Van Petten, 1598." Van Petten's identity is unknown; but it was long ago suggested by De Jonge, the historian of Dutch commerce and the archivist in whose charge these maps lay, that both these maps are by the same hand, and that they are probably the work of that Dutch expedition of 1598 whose journal we have from the pen of its clerk, Cabeliau. A comparison of the maps with this journal makes this practically certain, for the districts here mapped are precisely those where this expedition lingered. That this expedition which thus explored the Guiana coast claimed to be the first from the Netherlands ever to visit these havens, and that in recogni-

De Jonge, *De Opkomst van het Nederlandsch Gezag*, i, p. 50, note.

Extracts, No. 5.[2]

[1] These tracings I owe to the courtesy and the skill of Mr. W. G. Van Oyen, of the Dutch *Rijksarchief*.

[2] "*Extracts*" means the extracts from Dutch archives published in vol. ii of the report of the Commission. "*Atlas*" means, of course, the atlas of the Commission (vol. iv of the report).

tion the States General granted it freedom from convoy dues, appears from the minutes of the States; and it is at least highly probable that the journal of Cabeliau, which we now find among the papers of that body, was the report required by the States General as a condition of this exemption from dues. These maps are found also in the same archives; and there is every reason to believe that they were prepared and submitted as part of the same required report. In that case, they take on a semi-official character, and must be ranked among the accredited proofs of the priority of this Dutch expedition of 1597–1599. They are suggestive, moreover, of the localities to which Dutch attention was first especially directed; and their soundings and measurements imply a further use to which they might be put. There is in them, however, no intimation of any occupation or attempt at occupation on the coast mapped, and nothing which implies territorial claim of any sort.

Extracts, Nos. 2, 6.

Of that alleged Dutch map of the entire Guiana coast, from the Amazon to Margarita, which a Spanish official document of 1615 ascribes to the Dutch geographer Peter Plancius, I have found nothing; but the petition of Plancius and others to the States General, in 1604,

Blue Book, "Venezuela, No. 3," pp. 205, 206.

Extracts, No. 11. for a percentage of the profits of the Guiana trade may well point to such a service. The relations of Plancius with the Dutch East India Company had been close, extending even to the instructing of their skippers;[1] and sailing directions of his, drawn up just at the end of the sixteenth century, show that he counted the West Indies to be as yet within the scope of that company's activity and of his own functions.[2] It would not have been strange for such a map as that known to the Spaniards to be officially asked from him.

For long the East India Company had thus its official map-makers. But I can not learn that the West India Company, which from 1621 controlled all Dutch commerce to America, ever entered into such relations with any maker of maps.[3] Certainly nothing of the sort appears

[1] See the entry of his fee for these services in De Jonge, i, p. 183.

[2] See his directions for East Indian navigation in De Jonge, i, pp. 184–200.

[3] The "*West Indische Paskaert*" partially reproduced as the first map of those forming Appendix No. III to the Blue Book "Venezuela, No. 1," is only by error called in the table of contents "Official Chart of Dutch West India Company." I have carefully examined the original of this map in London without finding in it any warrant for such a claim. There are in the British Museum four of these *Pascaerten* representing "the coasts within the charter of the West India Company"—i. e., the entire coasts of the Atlantic and of America. They are by different makers and are differently colored; but neither makes any claim to be official. In passing, I may remark that there must also be something wrong with an interpretation of the colors which makes "independent" the islands of Trinidad and Margarita, the most important and best known Spanish possessions in this region.

in any document which I have been able to find. In the very earliest years of that company one of its foremost members, Jan **DE LAET**, set himself at the compilation of text and maps for that careful topographical description of the New World which he first published in 1625.[1] It became at once the standard work, not only in the Netherlands, but outside; while its maps, in whose preparation he had been aided by Hessel Gerritsz., the official map-maker of the East India Company,[2] were widely copied. That of Guiana, adopted outright and without credit by the great Dutch map publishers, Blaeuw and Jansson, is the one appearing regularly in Dutch works of the seventeenth century. It was perhaps the adequacy of this great work which made

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There is, however, on these *Pascaerten* another indication of the political allegiance of each district: on the colonies of each European state is pictured the coat of arms of the mother country. In each of these *Pascaerten* northern South America bears the arms of Spain; in each New Netherland in North America bears the arms of the Dutch; in none is there any coat of arms on Guiana. In the Lenox library, at New York, there is a copy of the earliest of these *Pascaerten;* this, too, has been ascribed to the West India Company, but with as little ground.

[1] *Nieuwe Wereldt, of Beschrÿvinge van West Indien*, Leyden, 1625. Republished in Dutch in 1630, in Latin in 1633, in French in 1648.

[2] See the introductory note to the list of maps in his first edition (1625). There is catalogued among the maps of the Rijksarchief at The Hague a certain *Rotario* of maps of "the West India Islands, Guayana, Brazil, and the adjacent waters," collected by Hessel Gerritsz. in 1627–28. But Mr. Telting, the archivist in charge of these maps, who has carefully examined this bundle for me, assures me that the catalogue is in error, there being no map of any part of Guayana to be found in it.

it possible for the West India Company to dispense with an official geographer—unless, indeed, Jan de Laet himself may be called such. But Jan de Laet's maps show no political boundaries; nor is there in the accompanying text anything as to the territorial claims of any European power in Guiana.[1]

The nearest approach which I have been able to find in the seventeenth century to an official Dutch map of the Dutch colonies in western Guiana is that of the Middelburg geographer, Arend **ROGGEVEEN**, who, in his sea atlas, the *Brandende Veen*, or "Burning Fen" (Amsterdam, 1675), makes use of the descriptions and charts sent home by the engineer Cornelis Goliat, who had been charged with the location and the laying out of the colony of Nova Zeelandia (1658–1665).[2] But his maps are sailing charts, and ignore political boundaries.[3]

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[1] The map reproduced in Appendix No. III to the Blue Book "Venezuela, No. 1," as "Blaeuw's map of Guiana" is the De Laet map as copied by Blaeuw's atlas. I have examined sundry copies of this atlas, most of them uncolored. The colored ones differ much in choice and place of colors. The source and meaning of the coloring I am unable to learn. To official authority, of course, neither this atlas nor that of Jansson lays claim. For De Laet's views as to Europeans in Guiana, see Vol. I of this report.

[2] For Goliat's share in this see Extracts, Nos. 37, 38.

[3] There are, in the collection of the Dutch archives at the Hague, two manuscript sea-charts of the coast of Guiana in the seventeenth century. One, dated 1627, shows the coast from the Essequibo to the Amazon. The other, without date, includes also the neighboring West India islands. But neither shows any knowledge of the mainland west of the Essequibo; and neither suggests a political boundary.

The oldest map of the Essequibo colony now existing in the Dutch Rijksarchief bears the name of the land surveyor, Abraham **MAAS.** Maas arrived in the colony in 1701. On July 30, 1706, the governor, Samuel Beekman, transmitted to the Company a map made by him, saying in his accompanying letter of that date: Atlas, map 59.

Herewith you will receive the map of the entire colony made by the land surveyor, Abraham Maas, wherein you will be so good as to see whereabouts all the plantations lie, and also how many acres have been measured off for each plantation.[1]

In their answering letter of February 24, 1707, the West India Company (Zeeland Chamber) thus acknowledged its receipt:

The transmitted map of that river has also been gratifying to us, inasmuch as we find it very distinct in the delineation of every plantation. The list giving all the plantations and the year in which each was established we have likewise received, and this shall serve for our instruction as regards the assessment of the poll and land tax.[2]

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[1] "Hierneevens bekomt U Edele Agtb. den kaart van de Gantsche Colonie, gemaakt door den Landtmeeter Sr. Abraham Maas, waerin U Edele Agtb. sullen gelieven te sien, waarontrent alle de plantagies leggen als meede hoe veel akkers voor ider plantage is gemetten."

[2] "De gesondene Caart van die riviere is ons ook aangenaam geweest, de wylse die [*corrected in a contemporary hand, but in different ink, to* dewyle sie] seer distinct bevinde in de afteykeninge van yder plantagie.

"De Lyst van alle de plantagien en in wat jaer die aengelegt syn, hebben wy mede ontfangen, en sullen die tot onse narigtinge laten strecken omtrent het invorderen van het hooft en ackergelt."

To which Beekman replied on July 11, 1707:

That the map of the river was found by you distinct gives me pleasure, and, inasmuch as the land surveyor has surveyed since then a few small plantations beside, and has also measured off to certain other plantations, as requested by them of me, certain additional pieces, you shall receive the completed map on the arrival here of proper paper, which is wanting here.[1]

It is possible that Maas was unable to get this good paper until his return to Europe, for the next we hear of a map is when on February 14, 1715, the West India Company (Zeeland Chamber) voted 25 guilders to the land surveyor Maas "for the making of the new map of Rio Essequibo presented a week ago to the meeting."[2] The one map of Essequibo bearing Maas's name which is still to be found among those of the West India Company has no date; but that it is the first of those above described seems sufficiently shown by the fact that it is drawn on ten separate sheets of very ordinary paper, pasted together two abreast and then end to end. It must be assumed, then, to represent the plantations of the colony in the year 1706,

[1] "Dat de kaart der riviere van Haer Ed: distinct bevonden is myn welgevallende, en nadien de Lantmeter nog eenige kleyne plantagies na dato heeft gemeten, ook nog eenige plantagies op haer versoek aen myn nog eenige stukken heeft bygemeten, soo sullen Haer Ed: de volslagen kaart, met d'aenkomst van schoon papier dat hier manqueert ten vollen ontfangen."

[2] "Voor het maken van de nieuwe Caart van Rio Isequebe over agt dagen aen de vergaderinge gepresenteert."

and that not without some omissions.[1] It indicates no colonial boundaries. The accompanying list of the plantations and of their dates of establishment is not to be found.

On December 12, 1726, there was read in the Zeeland Chamber of the West India Company "a letter from A^{s}. Lerlorant, engineer in the river of Essequibo, dated September 5 of this year, serving particularly to transmit a map of the above-named river."[2] No such map can now be found. **LESLORANT** (as his name is oftener spelt) was the engineer charged with the erection of the new fort on Flag Island.

In 1736 the Company was again in correspondence with a surveyor regarding a map of Essequibo, but nothing seems to have come of it.[3] With the outbreak of the border troubles with the Spaniards of Orinoco, toward the middle of the century, however, the need of a better map was felt by the Company; and on September 9, 1747, its supreme board, the Ten, instructed Commandeur **STORM VAN 'S GRAVESANDE** to have one made, if a competent

Extracts, No. 160.

[1] Such an omitted plantation, known to us through the contemporary records, is, e. g., that of *Nieuw Middelburg*.

[2] "Gelesen een missive van A^{r}. Lerlorant Ingenieur in de Rivier van Isequebe de dato 5 September deses Jaars, dienende in het bysonder tot geleyde van een kaerte figuratif van d'opgem^{e}. Rivier."

[3] One letter of this correspondence (August 30, 1736) is to be found in vol. 2008 of the West India papers (Hague, Rijksarchief).

surveyor could be found in the colony. He lost no time, but on February 11, 1748, transmitted the desired map, explaining in his letter that, as he could find no competent surveyor, he had undertaken the task himself, compiling from sundry charts which he had from time to time drafted for his own satisfaction.[1] This map was, however, unfortunately lost in transit. The ship which bore it was captured by the French. Its author at first hoped that it might yet come to hand, but could later only congratulate himself that "the French will at least make no use of the map, since the smith P. Van der Mart and the corporal Soete have assured me that they themselves saw them tear it to pieces and trample it under foot before their eyes."[2] The undaunted Commandeur, however, though he had kept no copy of the map, had set himself at once at reproducing it; and by September 8, 1749, he could again forward a map. This map, too, though as late as 1769 it was still hanging in the hall of the Zeeland Chamber at

Blue Book, "Venezuela, No. 3," p. 90.

Blue Book, "Venezuela, No. 3," p. 90.

Blue Book, "Venezuela, No. 3," p. 92.

[1] "Hebbe ik zelve zoo veel my de kortheyd der tyts heeft toegelaten, een kaert opgemaakt uyt differente kaertjes die ik van tyt tot tyt uyt liebhebberie hebbe opgenoomen dezelve is niet van de uytersto exactitude, maar sal weynig manqueeren, als alleenig, dat beneede nog veele Eylanden zyn die daer niet opstaan, wyl dezelve niet hebbe opgenoomen, en niet bewoond zynde van weynig belang, de plantagien, waerby het Getal der slaaven niet uytgedruckt staan, zyn die geene waarvan de lysten nog niet ingecomen waren van den Jaare 1747."

[2] Thus he writes the Company on June 8, 1749.

Middelburg,[1] seems to have utterly disappeared. I sought it in vain, both in The Hague and in Zeeland. But the Government of Venezuela, more fortunate, having found it at Paramaribo, in the colonial library of Surinam, a certified copy of it is in the hands of the Commission. Save that the date attached, August 9, 1748, is earlier than one would infer from that of its transmission, it answers in all respects to what we know of it from its author's letters: in its lack of colors, in its showing the two missions and the active volcano, in its want of the Blaauwenberg and of the Cuyuni plantations. And the date, 1749, attached to the volcano, would of itself show that the map was not completed until that year. The importance of this map, though it shows no boundary line, needs no pointing out.

Atlas, map 60.

Blue Book, "Venezuela, No. 3," p. 92; Extracts, No. 211.

But Commandeur Storm had scarcely sent off his map—there is some reason for believing he had not yet sent it[2]—when there came into his

[1] The historian Hartsinck was then permitted to have a copy of it made, on condition that the original should not leave the walls of the Chamber. See Extracts, No. 271. In basing his own map of Essequibo and Demerara upon it, Hartsinck treated it (as he tells us in his preface, p. xii) with much freedom of amendment.

[2] This lies in the singular agreement of the maps in certain details, notably as to the courses of the upper Essequibo, the Mazaruni, and the Cuyuni. Unless both rested on some earlier map unknown to me, it is hard to resist the belief that Storm's map was in these respects copied from the other.

hands another, a **MAP MADE BY THE SPANIARDS.** Already, on March 23, 1747, he had written to the Company about a certain Spanish exploring expedition to the sources of the Cuyuni and the Mazaruni, and had reported these explorers to be making a map, of which he would try by all possible means to gain a copy. By November 20, 1749, if not earlier, that copy was his; for on that date, in again mentioning to the Company "the discoveries made in our neighborhood by the Spaniards in the year 1748," he could add, "a copy of the map whereof (notwithstanding its being prohibited on pain of death) I have been able to obtain."[1] That this was the identical map which a few months later in Zeeland he handed over to the West India Company to illustrate the report then submitted by him in person, saying of the map that "it was made by the Spaniards and copied from theirs," there can be little reason to doubt; nor yet that it was this that he meant when in his letter of September 2, 1754, he

Extracts, No. 172.

[1] See Blue Book "Venezuela, No. 3," p. 92. But the translation there, "to obtain *cognizance* of," is in error. This letter, in Storm's own neat hand, is at The Hague, where I have studied it. As, however, this passage has been printed, and with exactness, by Netscher (*Geschiedenis*, p. 382), it was needless to include it in my extracts. The Dutch of the sentence in question runs: "*De ontdekkingen door de Spanjaarden in onze nabuurschap in den jaere 1748 gedaen en waervan (niettegenstaande op levensstraf verboden) een copye van de Caerte hebbe weete te bekomen, konnen mede van geen gering voordeel voor ons wesen.*"

referred the Company to "the little map handed over by me at my interview in Zeeland." From the minutes of the Zeeland Chamber it appears that "the little map mentioned in the Commandeur's report" had been at their wish "handed over by him" to the Stadhouder; but it must have been returned to the Company, for there now exists, among their remains, a little map which can hardly be any other.[1] It can not be quite certain, indeed, that this little parchment map is the identical copy made from the Spanish map or the identical one handed in by Storm van 's Gravesande. There are in it odd misspellings which seem impossible, not only to Storm himself (in whose handwriting it is not), but to any other dweller in the colony,[2] and it is not impossible that this is but a copy, later made on parchment for its better preservation, of that handed over by Storm. In any case, it is clear that this map is not a mere copy from a Spanish one, but a translation into Dutch as well; and it may well have undergone other modification in the process. It is hardly possible,

Blue Book "Venezuela, No. 3," p. 99.

Extracts, No. 172.

Atlas, map 61.

[1] It is this map which is reproduced as a "sketch map by Governor Storm van 's Gravesande" in Appendix No. 3 to the Blue Book "Venezuela, No. 1" (map 5); but here from a free-hand copy of 1887, which, though patiently made, does not lack serious errors.

[2] Such as "Anwacke" for Ariwacke (the British copyist has corrected this out of hand), "stabes" for Itaboe, "Consetrall" for Courthial.

for example, that the Spanish Jesuits could in 1747 have known of a change in the place of the Arinda post which was not so much as resolved on by the Dutch until 1750. The little map contains no suggestion of boundary; but both this and Storm's own map derive a peculiar interest from the fact that it is these which must have lain before the Company when it drew up in 1759 that remonstrance to the Spanish Court which is the earliest known communication between the two Governments as to territorial limits in this region. Another map had, indeed, already been appealed to, which only by mishap had not found its way to the Company's hands. This was the map by the great French geographer, **D'ANVILLE**, which, on September 9, 1758, Storm van 's Gravesande had cited in support of his claim to the Cuyuni, declaring that it was "drawn by Mr. D'Anville with the utmost care" and that on it "even our boundaries" may be seen portrayed, "of which, it appears, he was informed by good authority."[1] Storm had, as he later explained, first become acquainted with it during his visit in Holland in 1750–51, when he saw it in the hands of the Stadhouder. But the company did not identify the map, perhaps

Extracts, No. 172; cf. Blue Book "Venezuela, No. 3," p. 95.

Blue Book "Venezuela, No. 3," p. 110. For D'Anville's map (published in 1748), see Atlas, maps 39, 40.

Extracts, No. 210.

Blue Book "Venezuela, No. 3," p. 118.

[1] . . . "en daerop selver onze limiten afgeteekent zien, waarvan het schynt hy van goeder hand onderregt was."

searching for one of Guiana by itself. In reply to their further inquiry, Storm explained on September 1, 1759, that what he meant was D'Anville's latest map of South America, but that he could not transmit it because both of the two copies received by him from Europe had been sent off, one after the other, to the Spanish authorities of the Orinoco in support of his protest against their aggressions. By May 2, 1760, however, a copy had come again into his hands and he had copied from it the portion relating to Guiana, marking in along the Cuyuni, in pursuance of the Zeeland Chamber's specific request of December 3, 1759,[1] the locations of the company's former plantation, Duynenburg, and of its abandoned coffee and indigo plantations, as also the Creoles' place, the Blaauwenberg, where the miners had worked, and the company's post, adding at their proper sites the other three posts of the colony. But this map he accidentally omitted to inclose in his letter of this date, and it was not till March 18 of the next year (1761) that upon a reminder from the company it was actually forwarded.

So report their minutes for this date.

[1] Blue Book "Venezuela, No. 3," p. 114. By an error in translation the three plantations named are here (and elsewhere in this connection) spoken of as still existing. In the original the verb is always in a past tense. That they had long been abandoned is else well known.

Extracts, No. 218.

At last, on June 22, 1761, it lay before the company, and in their letter of November 9 they acknowledge with enthusiasm its receipt and its interest.[1]

Tardy though it was, it arrived at a not inopportune moment. Only a fortnight before there had been laid before the Company the printed copies of the map of Demerara made by Storm's much-loved nephew and namesake, Laurens Lodewyk **VAN BERCHEYCK**. Van Bercheyck, whom Storm had brought to the colony in 1751 had served first as land surveyor, then as military commandant in Essequibo, and in 1759 had especially commended himself to the company by the completion of this excellent map of Demerara.[2] But it was on June 8, 1761, when were laid before them a dozen engraved copies of the map, dedicated to the Chamber, that their gratitude found expression. It was voted, not only to order sixty additional copies for the Company, but "to pay for the engraving of the plate of the said map." On November 9, 1761, they

Minutes of the Zeeland Chamber, June 8, 1761.

[1] This map, alas, can no longer be found.

[2] Not only was he Storm's nephew (the son of his wife's brother—see Netscher, p. 383), but became his son-in-law. He was sent to the colony as surveyor on October 28, 1751 (a few months later than his uncle's return thither); was confirmed as commandant (captain-lieutenant) January 6, 1755; transmitted his map December 7, 1759, the Company receiving it March 24, 1760.

made Van Bercheyck Commandeur of Demerara, and on November 23 they further adopted a formal resolution of thanks for the map, voted its maker a cask of red wine, and gave him outright a negro slave whom he had asked to purchase.[1] Many copies of this printed map still exist. A part of them show only the river Demerara, as mapped by Van Bercheyck; but in others there is inserted in the margin a little inset map of Guiana as a whole, which is clearly copied from the map of D'Anville—just such an extract, in short, as that received by the company from Storm van 's Gravesande at almost the same moment with the engraved Van Bercheyck map. Is it too much to suspect

Minutes of the Zeeland Chamber, November 23, 1761.

Atlas, map 62.

[1]Cf. their letter to Van Bercheyck, January 11, 1762:

"Wy hebben op zyn tyt wel ontfangen U Ed. missive van den 7 Dec. 1759 met de daerby gevoegdt geteekend, en aen ons opgedragene kaerte van Rio Dimmerary, ook zyn vervolgens in de maand Juny deezes jaers U Ed. vader den Heer Groot Majoor van Bergchyck in onze vergaderinge [in] U Ed. naam aan ons gepræsenteerd eenige gedrukte exemplaren van dezelve kaarte, die naderhand ten onzen verzoeke van nog 60 andere zyn gevolge geworden.

"Al t'welk wy als een blyk van U Ed. yver, attentie, en erkentenis voor deeze kamer considereerende, ons zoo aengenaam is geweest, dat wy t'zelve hebben geoordeelt te moeten remuneereren, gelyk U Ed. zal blyken uyt de Extract resolutie onzer vergaderinge in dato den 23 Nov. 1761, en waarvan copie authentyk den deezen is gevoegd.

"Wy vertrouwen dat U Ed. door onze voorsz. remuneratie mitsgaders door U E. aanstellinge tot Commandeur van Dimmerary zult aangemoedigt worden, om U Ed. alle mogelyke kragten van U Ed. nieuw aanbevoolen post te quyten, en dus volkomen te beantwoorden aen de verwagting, en het vertrouwen, die wy van U Ed. geformeert, en op U Ed. gesteld hebben."

that the inset was thus suggested, and was added at the wish of the company?[1]

This conjecture receives added color from a request addressed by the Company to Van Ber-
Extracts, No. 221. cheyck on August 23, 1762. They asked the cost of a map of the river Essequibo, and further, "whether, either in that map or on a separate one at the same time, there could not be mapped also the coast from the Essequibo to the Orinoco, with accurate location of the mouths of the rivers Pomeroon, Waini, and Barima, and of such others as flow into the sea between the Essequibo and the Orinoco." Van Bercheyck replied, March 10, 1763, that this coast had already been so accurately mapped by D'Anville that he could hardly hope to do better, but that he would gladly make his map of Essequibo the more sightly by including the
Extracts, No. 226. coast to Barima.[2] But, while the Company was yet hesitating over the cost, the enterprising Van Bercheyck, whose hands had meanwhile been full with the suppression of the great slave revolt, died (May 12, 1764), and no part of his map of Essequibo ever saw the light.

[1] True, this inset does not contain the plantations and posts marked in by Storm. It is a copy of D'Anville, pure and simple, and may of course be due only to the enterprise of the publisher (Hendrick de Leth, at Amsterdam); but the other seems to me the more probable conjecture.

[2] This answer would seem to imply that he regarded the Barima as the boundary.

That the West India Company should now pin its faith to the D'Anville map is not strange. When in 1769 there was drawn up by the Company and adopted by the States General that remonstrance to the Spanish Court which is the only document known to my research wherein a claim to boundary is definitely and formally communicated by the one Government to the other, it was not to the Barima, as desired by Director-General Storm van 's Gravesande, but only to "beyond Waini," as laid down in the D'Anville map, that Dutch territory was asserted to extend; and the D'Anville map was cited by name in support of the claim. It is, I am convinced, the only map ever cited in support of any boundary by either Dutch or Spanish authorities.

On October 9, 1765, Storm van 's Gravesande reported to the West India Company that "there has put in here Captain Jacob **BOGMAN**, colonial coast-guard of Surinam, who has orders to take measurements of the whole coast as far as the territory of the State goes, to chart all the banks and the entrances of the rivers, and to make a new map of it. This will be of much service to navigation. He began at Cape Orange."[1]

[1] "Hier is ingelopen Capiteyn Jacob Bogman commandeerende s'lands uytlegger van Suriname welke bevel heeft de geheele kust te peylen zoo verre het district van den Staet is, alle de

Neither the papers of Essequibo nor those of Surinam at this period throw any further light on this enterprise of Captain Bogman. It is unusual, however, for such sea charts to show political boundaries; and there is no reason to suppose this, if ever completed, an exception.[1]

Another map, of which likewise we know only through the correspondence of Storm van 's Gravesande, belongs to the very last year of his long administration. On August 27, 1772, he wrote to the Company.

Blue Book "Venezuela, No. 3," p. 180.

Very many plantations having been laid out on the west coast of this river,[2] BOUWMAN, the surveyor who measured all those plantations, has at my request made a chart of that coast as far as Pomeroon and the Post of Moruca.[3]

He adds, doubtless on the evidence of this map, that already between the actual mouth of the Essequibo and the creek Hamake there were twenty-seven plantations, while from that point it was but six thousand rods to the creek

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banken optenemen en ingangen der rivieren en een nieuwe caert daervan optemaken. Dit sal van veel nut voor de navigatie zyn. Hy heeft van Caap Oranje begonnen."

[1] It is not impossible that his results may have been utilized in the "Chart of the coast of Guiana between the rivers Essequibo and Orinoco" published in 1785 at Amsterdam by G. H. van Keulen.

[2] The Dutch is: "*aan de Westcal dezer riviere.*" "On the coast west of this river" would be a more exact, though less literal, translation.

[3] Dutch: "*die kust opgenomen tot aan Bowaron en Maroc tot aan de post.*"

Maria-caboera, and thence but nine thousand to the mouth of the Pomeroon.[1] But what surprised him most in this exact map[2] was the location of the Post in Moruca, which he had not supposed so far up the creek, but now finds to lie just before the inland passage through the Itabos. This map, if ever sent to the Company, is now lost. One would gladly believe it preserved in the map later compiled and transmitted by Chollet. But while as to the location of the Moruca post and the number of the west shore plantations this later map answers nearly to the description, it does not tally as to the distances on the coast.

Atlas, map 68.

In the spring of **1772** there visited Essequibo for the first time a young map-maker whose share in its cartography was to be large. This was Johann Christoph von Henemann,[3] or **VAN HENEMAN** (as later, giving a more Dutch turn to

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[1]There is here certainly a slip in the Blue Book translation. The words "taken up" are not in the original, and are quite impossible here (cf. not only all late maps, but especially Extracts, No. 324). "Roods" should be *rods*. It is of *distance* the writer speaks. This letter, though signed by Storm in autograph, was written by a secretary, who has sadly misspelled the proper names. They are, however, quite recognizable, and I venture here to correct them. The secretary's orthography is that given by the Blue Book.

[2]Dutch: "*by deeze exacte opneeming.*"

[3]His habit of signing his initials, "J. C.," in the form of a monogram was puzzling to copyists, and one of the letters was often omitted. Hence it is that Netscher (p. 387) makes two men out of him, suspecting one to be the father or brother of the other.

the name, he signed himself), an ensign of German extraction from the garrison of Surinam. He had shown such abilities as to be charged in 1770 with remapping that colony,[1] and now, having this task well toward completion, he was given leave of absence to accompany as far as Essequibo a Dutch war vessel then lying in Surinam, in order that he might take observations along the coast.[2] Arriving in Essequibo, he became, with the captain of the vessel, Van den Velden, the guest of the old governor, Storm van 's Gravesande, and under his guidance made an excursion up the river to the old fort of Kykoveral and the falls of the Cuyuni. "This morning about ten o'clock," says the journal of Captain Van den Velden, under date of April 9, 1772,[3] "we went up the river Cuyuni in two canoes (one a small one, in which Mr. Van der Heyden went ahead to point out the way, inasmuch as a little way up this river one has to navigate among a chain of rocks lying partly under water, partly showing above it). About

[1] This appears from his petition to the directors of Surinam on August 20, 1789 (in vol. 902 of the Surinam papers, Hague, Rijksarchief). The Dutch is given on pp. 151, 152 below.

[2] Thus Governor Nepveu, of Surinam, in his letter to the Society of Surinam, March 11, 1772: "*Den vaandrich Henneman heeft de Kaart van de Colonie de novo opgenoomen, en zo accuraat mogelyk alles nagegaan*," etc.

[3] This journal is No. 1317 of the great admiralty collection in the Rijksarchief at The Hague. It bears the title: "*Journaal van 's lands scheepen d. Triton en Boreas, 1770, 1771, 1772, en 1773.*"

half past eleven we came to the first fall of the river, called Acajou, which comes down with great swiftness and noise, being nearly eight feet high and flowing through a multitude of crags and rocks, as may be seen in a special map, which the engineer Heneman, who was with me, made of this river and fall, as much as time permitted." This map thus made for Van den Velden is the most detailed portrayal known to me of the lower course of the Cuyuni and the junction of the three rivers, at first and for long the site of the colony. Strictly speaking, it has no official quality whatever. Yet, made as it almost certainly was, under the eye and with the help of the old governor, Storm van 's Gravesande, as a contribution to the official journal of a naval officer of the State, its testimony is of a more than private order.

Atlas, map 63.

Heneman returned to Surinam,[1] but not for long. With the opening of 1773 the colonies of Essequibo and Demerara passed out of the old Zeeland monopoly into the control of the West India Company as a whole; and its new managers felt at once the need of an engineer's services. As early as April 8 of that year the Ten resolved to send one to report as to the best

[1] It would appear from his memorial of August 20, 1789, above cited, that he first kept on with Van den Velden to Holland, where he laid a part of his map of Surinam before the directors; then returned to the colony.

route for a canal between Essequibo and Demerara. On April 15 they resolved to write "to the Commandeur and councilors in Demerara that this body has decided that both for the safety of the river of Demerara and for the prevention of smuggling a redout or battery shall be established at the place which shall be deemed most suitable, and that to this end there shall be sent on behalf of this body a capable engineer, who must be provided by the Commandeur with whatever is necessary; and this engineer, together with the captain-commandant and with the land surveyor who shall be deemed most capable therefor, must draw up a plan and transmit it to the Chambers Amsterdam and Zeeland." This engineer was also to inspect the island of Borsselen and the government buildings thereon. And on the same day it was further resolved "that the Director-General [of Essequibo and Demerara] and the Commandeur of Demerara must cause to be made an accurate map of both the rivers, leaving open provisionally the place for the public buildings until it shall be decreed at what place they are to stand."[1]

[1] Thus the minutes of the Ten for this date. The Dutch of this last resolution runs:

"23. Dat den Directeur-Generaal en Commandeur van Demerary, moeten laten opmaaken eene accuraate kaart van beyde de Rivieren, provisioneel de plaats der publicque gebouwen openlaaten, tot dat zal zyn gearresteert, op welke plaats deselve zullen koomen."

The Company, a part of whose directors, as members also of the Society of Surinam, must have known of Heneman's good work in that colony, doubtless had already an eye on their engineer. On May 5, 1773, the Society of Surinam consented that Heneman, now "first lieutenant of artillery and engineer," might absent himself for the task in Essequibo and Demerara; and in November he entered on the work. This task, as later defined by the Ten, was "to examine the situation of the two rivers, to take measurements thereof, and to draw up a plan of forts and batteries for the defense of those rivers." But from the first he seems to have been charged with the making of a general map, as well as with the planning of fortifications. In his final report of his survey, submitted on September 18, 1776, he speaks of himself as engaged upon it from November, 1773, till March, 1775. By that time, though he complains bitterly that he was not supported by the authorities, who furnished him with no yacht for his work and for helpers gave him only green negroes, knowing no speech but their African gibberish and needing even to be taught to row, while the only man who could carry chain for him was a black he had brought along from Surinam,

Extracts, No. 297.

Extracts, No. 308.

he yet had made "the requisite charts, plans, and drawings," so as to be able to form there-
Extracts, No. 297. from a general map. This general map, which was to give accurately all the plantations, was perhaps never completed. It very probably shattered on the rock of expense, for already on December 22, 1774, the Ten were protesting that they could not see why a map of the two rivers need cost so much. At any rate, no such map is now to be found among the archives of the Company. But among those
Atlas, map 64. archives there is a map by Heneman[1]—a mere sketch map—giving the results of his surveys, and meant as a basis for the more elaborate one. It bears the title:

"Sketch map of the Colonies of Rio Demerara and Rio Essequibo, as also of the abandoned Colony of Rio Pomeroon, together with a part of the Colony of Rio Berbice, with the further Districts, Rivers, and Creeks of the Colonies aforenamed, as likewise the contour of the Sea-coast and its Banks, etc., from sundry observations and surveys drafted and compiled toward the formation of a General Map of the said Colonies and their Plantations and conceded Lands and Grounds, as also of those Districts and Lands which can yet in the future be granted and cultivated,[2] serving

[1] This sketch map—a large one on heavy brown paper—is uncolored except for the indication, in sepia, of the ground available for plantations; the inner border of this is shown by the dotted lines parallel to the rivers.

[2] There is here almost certainly an omission in this title—probably a line mentioning the *canals* as also shown by the map.

for the freer and better communication of these Colonies in case of a domestic or foreign war, etc., etc., and moreover for the transportation of produce and merchandise more conveniently and with less risk than outside by sea. By order of the Honorable Chartered West India Company, conceived and drawn by J. C. v. Heneman, Engineer."

This map bears no date, and it can not be quite certain that it was transmitted with its author's report in September, 1776.[1] Yet this is every way probable; and, in any case, as Heneman now returned to Surinam, the map's information belongs to this period. When there are taken into account the haste and the hindrances of his work, and the fact that at the same time he prepared and submitted several local charts and many elaborate tables, great accuracy as to the remoter parts of the colonies will hardly be expected; and in particular his portrayal of what lies west of the Essequibo and the Pomeroon does not suggest personal observation. Both as to the coast region and as to the upper course of the Cuyuni and Mazaruni, it seems—what it doubtless is—a mere adaptation of the map of D'Anville. It is perhaps,

For two of these see Extracts, No. 297 inclosures.

[1] It is much to be regretted that the minutes of the Ten for 1777 are lost. The resolution of the Ten on April 29, 1776, that "the commandeur in Demerara must send over the map made by the engineer Heneman," refers more probably to one of his local charts.

therefore, needless to conjecture any other source for the boundary line which appears for a short stretch at the northwest corner of the map. Both in point of departure on the coast and in direction it concurs nearly, though not quite exactly, with D'Anville's line—starting a trifle more to the east and trending a trifle more to the west.

But there exists another map by Heneman, of quite another interest and importance: the one map, so far as I am able to learn, ever devoted to the boundary between Spanish and Dutch Guiana.[1] It now lies in the library of the department of the colonies at The Hague,[2] though how it came there it is hard to guess. Labels still decipherable on its back seem to show that it once belonged to the collection of the West India Company.[3] Further clew I have not found. The map's title runs:

Atlas, map 65.

"Sketch Map of the Boundaries between Royal-Spanish and Dutch Guiana on the mainland of South

[1] The map is uncolored, except for a stripe of red along the boundary line; this comes out only imperfectly in the reproduction. That the map is a copy, not Heneman's autograph manuscript, is made probable by the omission of his initials, due doubtless to that puzzling monogram already mentioned.

[2] I much regret that the examination of this collection came very late in my work at The Hague. During the time which remained to me no effort was spared to learn the exact date and occasion of this map; but my success was slight.

[3] These can be made out, though now pasted over, by holding the map up to the light. My conclusion is that reached also by the archivist of the West India papers, Mr. Telting, who better than any other knows this collection of maps.

America; belonging to the Report hereon, conceived and charted by v. Heneman, sworn Engineer."

The report here mentioned can not be found. It forms no part of that submitted by Heneman to the West India Company in September, 1776, which nowhere makes mention of this boundary.[1] It is not impossible that it was handed in at the same time as a confidential report. What makes it improbable are the differences between his general map and this special one, and notably the difference in the boundary line itself. The boundary leaves the coast, indeed, at what may be meant for the same point, though changes in the contour of the coast and in the spelling of names, the insertion of a new river (the "Mocco-mocco"), and the omission of an old cape ("Caap Breme") leave this somewhat uncertain. What is more significant is its change in direction. Instead of running south-southwest, as in the general map (and in D'Anville's), it has veered two full points of the compass, and now runs due southwest, no longer cutting (as in D'Anville's map) the Cuyuni and the Mazaruni, but crossing the head waters of the great branches of the Orinoco—the Aguire, the Caroni, the Caura,

[1] **Of this report of September, 1776, there are two copies in the Rijksarchief (in vols. 175 and 2012, b, of the West India papers), both signed by the author in autograph. I have carefully examined both.**

the "Paruma" (D'Anville's "Pararuma"). Just beyond its intersection with the last-named stream this western boundary of Dutch Guiana turns at a sharp angle and becomes the southern boundary, running thence east by south to the edge of the map. When, at whose instance, and for what purpose this map was made, and what sanction, if any, it ever received, it would be of exceeding interest to know. I have sought in vain for any mention of it in the minutes, both open and secret, of the West India Company and of the successive councils which until 1803 followed it in the government of the Guiana colonies. It is possible that it may have been prepared for the Stadhouder, who shared the passion for geography common among the princes of his time and who gathered a rich collection of maps;[1] but if so, he seems never to have

[1] This suggestion I owe to the kindly interest of the archivist-in-chief at The Hague, the Jhr. Th. van Riemsdijk. What I learned of the disordered condition of the private archives of the House of Orange, now awaiting the completion of a building for their satisfactory housing and arrangement, and the scantiness of the time remaining to me in Holland, forbade my making personal resea ch among these papers; but Mr. van Riemsdijk had the kindness to ascertain for me whether there might not be a catalogue of the maps of the Stadhouder, and informs me that no such catalogue exists. The interest of the Stadhouder, not only in maps in general, but in those of Guiana in particular, is shown by a passage, interesting in itself, in the minutes of the West India Company (the Ten). On August 10, 1784, the burgomaster Van den Helm Boddart stated in the session that His Highness the Stadhouder had informed him that, at the order of the French Government, "Marjouan de la Perriere" was

made a communication regarding it to the bodies administering the affairs of the colonies.

What has already been said of the career of Heneman prior to 1776 must make it improbable that his map of the boundary antedates that year. It may be of use to add what has been learned of his subsequent career. We find him presently engaged upon a series of elaborate district maps of the Surinam colony, still preserved and prized at The Hague. These he completed in 1778,[1] and was sent to bear his work in person to Holland, there to lay it before the directors. This appears from a petition which in 1789 (August 20) he submitted to these directors of Surinam for the reimbursement of expenses incurred in the making of this map.[2] In it he recapitulates his

making "a most accurate map [*eene alleraccuraatste kaarte*] both of the river Essequibo and of the river Demerara." Thereupon it was resolved to write to the French Government, asking copies of the map. La Perriere had governed the colony in 1783.

[1] Rijksarchief, West India papers, vol. 902 (*Requesten, Apr., 1796–Jan., 1797*). The statement of Van Sypesteyn, in his *Beschrijving van Suriname* (1854), p. 290, that on his map of Surinam Heneman "was busy, with fourteen surveyors, from 1771 to 1784," is, on Heneman's own testimony, an error. There is, however, no reason for doubting Van Sypesteyn's further statement that "Heneman was, in 1793, lieutenant-colonel of engineers in Surinam, on leave in the Netherlands"; and that "in 1776, being then a captain, he took part in the forest campaigns [i. e., the expeditions against the bush negroes] described by Stedman."

[2] . . . "Zoo is vervolgens ook, nae reype overweeging en raadpleeging ten ondergeteekendte Ingenieur gelast en geordonneerdt geworden, deese opneemingen te doen, en ter uytvoer te brengen. Yverig en begeerig zich van deese last en orders op de bestmoogelyckste wyse en gelyck als het een getrouw Ingenieur-officier

services to Surinam, but says nothing of his work in the neighboring colonies The petition

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betaamt, te quyten en te ontleedigen, zoo heefdt dezelve nae alle getrouwheydt nauwkeurigheydt en oplettendtheyt, op de exacte wyze, de eersten stuckken deeser opneeming gedaan, en booven gemeldte kaarten geformeerdt en gekaarteerdt en geteeckendt, deselve den Gouverneur Commandeur en eenige raaden in 't jaer 1772 voorgelegdt door deselve met genoegen aengenoomen, nae-gezien en onderzogdt, en vervolgens tot op verdere en hoogere approbatie der respectable vergaadering in Europa, geapprobeerdt naastvolgens met behoorig verlof door wylen de Hr Gouverneur J. Nepveu voorsz. voorzien, met Hoog Boord (zyndte het lands-schip van oorlog den Boreas, gecommandeert door wylen den capitayn van der Velden) nae Europa gezondten, nae myn arrivement alhier ter steedte, aen de achtbaare vergadering deese genoemdte eerste stucken dier kaarten . . . met eerbiedt voorgelegdt, door de achtbare vergadering met genoegen gesien onderzogt en door toenmaals d Hr Bewinthebber en Directeur Mr J. Rendorp geexamineerdt en vervolgens door de volle vergadering geapprobeert, om op even ende deselve voet als de eerste stukken voornoemt die opneming en verdere voortzetting en formeering derselver kaarten hierboven vermeldt voorttezetten. Dienvolgens oock den ondergeteekendte Ingenieur geordonneert en gelast om nae de colonie Surinaame, etc., etc., weer te vertrekken en terug te keeren en nae myn komste aldaer de verdere opneeming en noodige meetingen en het kaarteeren en teekenen der verderen en overigen rivieren en districten der Colonien ter uytvoer te brengen.

"Dit met zeer veel vermoeyenissen en uytgestaane ziektens en moeylykheden verknogdt en gepaardt gaande werck na 6 jaarigen arbeydt door Goods goedheydt volleedig geeyndigt hebbende, door verdere last van wylen d Hr Gouvr J. Nepveu in den jaare 1778, met het uytgevoerdte werck en tot standt gebragdte Kaarten deeser opneeming, hier nae Europa gezondten zyndte en deeser steedte aen de achtbaare vergaadering met alle eerbiedt voorgelegdt, en door toenmalige Heeren Bewinthebberen van der Poll, en Geelvinck en Berewoudts en d Hr Burgemeester J. Rendorp in het zelvde jaar 1778 naegesien en geexamineert en ten vollen geapprobeert zyndte geworden.

"Ingevolge last en ordre der achtbre vergadering zyn deese kaarten op groot olyphants papier gekaarteerdt en geformeerdt en alle nae eene en eeven deselve schaal gereduceert en geteekent en aan de respectable vergaadering door den ondergeteekenden overgelevert." . . .

is dated at Amsterdam, where, therefore, he then was, though still in the service of the colony. In September, 1796, the petition was renewed, Heneman being still in Amsterdam.[1] On August 14, 1798, Major F. von Bouchenroeder petitioned the Dutch Committee on Colonies for their consent that the engineer Heneman, whom he describes as "employed in the Amsterdam Chamber of this Committee," "aid him in the preparation of maps of Berbice and Surinam and of a general map of Guiana, as a sequel to his Demerara and Essequibo, inasmuch as Heneman "in earlier days traveled in these regions by order of the Government and made many surveys". But the Committee awaited a similar request from Heneman, which never came.[2] On August 20, 1802, Heneman, still writing from Amsterdam, petitioned that all requests for lands in the Guiana colonies might be laid before him, "as was the custom hitherto." This suggests what may have been his occupation in the Netherlands since 1778. On August 11, 1803, another petition was received from him by the Council of the American Colonies. It speaks of orders

Minutes of the Council of the American Colonies.

[1] Rijksarchief, West India papers, as above. It is as an inclosure in this second petition that the older one is now found.

[2] This matter appears more fully in connection with the work of Bouchenroeder, pp. 171–73, below.

for maps—nineteen in all—given him on April 18, 1787, and September 28, 1796. Sickness, he says, has prevented their completion; he is now, he adds, engaged on a new map of Demerara. On October 31, 1803, the Council voted him the sum of eight hundred guilders, in full payment of all claims, a copy of the new map of Demerara to be included for this payment; "and," adds the resolution, "he is hereby instructed to report definitely whether anything—and if so, what—is still lacking to the collection of maps of the cultivated portion of Surinam prepared by him, and henceforward to make no maps for the Council without its express authorization." Whereupon, on January 12, 1804, he submitted a list of maps which "ought to be added" to the Council's collection.[1] Among these is a "map of the Orinoco." What is meant is not impossibly this map of the boundary, in which, as will be seen, a great part of the Orinoco's course is shown. But the Council, taking

Minutes of the Council. (Rijksarchief, West India papers, vol. 1030.)

Minutes, as above.

[1] Rijksarchief, West India papers, vol. 968. This list runs in part as follows:

"van Essequebo, die zeer groot en breed is.
De kaart der Rivier Essequebo, oostwall.
idem Essequebo, westwall.
De kaarten van de Eylanden van de Rivier Essequebo.
De kaart van het boovengedeelte van Essequebo.
"van Pounneron:
De kaart der Rivier Pounneron.
id^m Oronocque."

this up on January 16, simply filed it for reference. The colonies were already in the hands of the British.

Minutes of the Council. (West India papers, vol. 948.)

How naturally at any time during this long service Heneman might have been turned to for such a map as that in question is apparent. The absence from his map, however, of any indication at the mouth of the Demerara of the new colonial capital, Stabroek, which was founded in 1782, makes it tolerably certain that the map antedates the English occupation of 1781. And the fact that Santo Thomé appears at the old site below the Caroni instead of at the new one of Angostura, to which it was removed in 1764, as he could perhaps have learned from Spanish maps available to him in Amsterdam—for those of Cruz Cano and Surville had now been published—adds ground for the belief that he made it before leaving Guiana in 1778. In that case it seems most probable that it was a special task confidentially assigned him as a supplement to that completed in September, 1776, and that the changes from the earlier map grew out of further study, or perhaps out of the suggestion to which the new map owed its birth.

The next map of Guiana known to me is one of which the West India Company itself perhaps

never possessed a copy. At least none is now to be found in its collection or is mentioned in its minutes. This is the map of **SIRAUT-DESTOUCHES**. The copy herewith submitted to the Commission was bought by me at The Hague from a well-known house dealing in old books and maps.[1] The inscription upon it tells us that it is a "sketch map of the colony of Rio Essequibo drafted from various observations as a basis of operations tending toward a projected general map" and dedicated to the Director-General and Court of Policy of the colony by Albert Siraut-Destouches in Essequibo, January 4, 1779; and that the present copy of it was made by the authorized land surveyor I. Van der Burght in 1801. There is no reason to question its truth. If the map itself was unknown to the Company, the names of both Siraut-Destouches and Van der Burght are familiar enough to its records. The former came to the colony in 1768 with the surveyor Massol, and had scarcely reached there before he was sent off on an exploring trip up the Essequibo.[2] He seems then to have settled

Atlas, map 66.

Extracts, No. 263. Blue Book "Venezuela, No. 3," p. 153.

[1] W. P. Van Stockum's Sons, on the Buitenhof. This map, I am happy to say, I am permitted on behalf of the Commission to add to the collection of the Rijksarchief, in trifling recognition of the many courtesies of its custodians. I may here add that all the manuscript maps thus bought for the Commission and here reproduced have been subjected to the careful examination of the scholars in charge of this collection.

[2] Extracts, No. 263.

down as a planter on the so-called "Arabian coast" (the seashore just at the west of the mouth of the Essequibo), and to have prospered there, uniting, so far as permitted, the functions of a land surveyor with those of a planter.[1] Whether or not his project of a general map ever reached its full consummation, it seems to have attained at least a riper stage; for another map, bought in Holland for the Commission from another dealer,[2] bears in spite of its coloring and its greater elaboration, so close a resemblance to this sketch map in general treatment, and concurs so exactly in the number and location of the plantations, that it was almost certainly made by the same hand and at nearly the same time, being apparently a slightly later form of the same map.

Atlas, map 67.

While both of these maps are of value as showing the limits of occupation at this date, neither suggests a boundary save by the extent given the map itself. But from this very fact they derive a peculiar interest; for when in 1781

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[1] The Court of Policy, which seems to have been well disposed toward him, not only tolerated this, but even ventured in 1775 to make him for a time colonial surveyor; but the company made repeated and sharp protests on the ground that he had received from them no authority to exercise this function. During the French occupation (1782–1784) Siraut-Destouches was himself a member of the Court of Policy, and on the departure of the French was left acting governor of the colony (February–October, 1784).

[2] The old house of M. Nijhoff at The Hague.

the English commander, Capt. Edward Thompson, on taking possession of the colony for Great Britain, demanded from the Court of Policy a map of the colony that he might acquaint the King of England with its importance, they ordered copied for him, as their records tell us, "the sketch map of the river drafted by the land surveyor Destouches, which lies in the office of the secretary." That this was the sketch map above described is suggested not only by the striking concurrence in title and by the fact that the secretary's office was precisely where such a map dedicated to the Director-General and Court of Policy would naturally be lying, but by the fact that a map there treasured might most naturally have been copied twenty years later by the colonial surveyor Van der Burght. And if so, the English map of the coast of Guiana "from the observations of Captain Edward Thompson in the year 1781," which prints along the river Barima the words "Western boundary of the Dutch according to their claim," must have derived this boundary from some other source than the map thus put into Captain Thompson's hands by the Dutch colonial authorities—a point of no small interest, if, as I believe, this is the earliest map to show that boundary.

Minutes of the Court of Policy, April 13, 1781; Extracts, No. 319.

For Thompson's map see map 6 of Appendix No. 3 to the Blue Book "Venezuela, No. 1"; or Atlas, map 43.

Atlas, map 68.

The map I have next to describe is also a waif,

without title, date, or name of author. But happily there exists of this two copies, one of them in the West India collection at The Hague and bearing the monogram of the Amsterdam Chamber; and among the papers of the Amsterdam Chamber there is a certain document mentioning the transmission of a map which can hardly be any other. This is a petition from the colonial surveyor **LOUIS CHOLLET**, received by that Chamber in September, 1791, asking a grant of land in the river Pomeroon or on the coast west of it. The petitioner had given attention, he said, to the west coast as far as the Pomeroon and to that river itself, on account of their agricultural promise, and had embodied his observations in a memorial which he inclosed, toge'her with a map, made by himself, beginning at the creek of Mahaicony and ending with the boundary between the Spaniards and the colonies of the State, in which map the river of Pomeroon and the neighboring districts were portrayed. Chollet's memorial of this date has not been found, but there is a later memorial by him on the opening of the Pomeroon, transmitted by the Governor-General in 1794. It is in French, like this map. The Amsterdam Chamber's monogram at the top of the map is to all appearance by the same neat hand as the

For this petition in full, see Extracts, No. 337.

See Extracts, No. 342, inclosure 2.

map itself; and the fact that both map and petition were thus addressed to the Amsterdam Chamber, instead of to the Ten or to the Company as a whole, while among the extant maps of the Company there is no other answering in the least to the description, makes its identity virtually certain. The map herewith submitted to the Commission, though unmistakably drawn and colored by the same hand, is not an exact duplicate of that in the archives at The Hague. It bears no monogram and has in a corner a bit of landscape, with a shelter, or rest-house, in the foreground and the name "Pontmarron" attached—a view perhaps sketched at the mouth of the river. The limit of the plantations on the coast is not precisely the same; and, what is of more moment, while The Hague copy shows something more of the interior in the southwest portion of the map, that submitted has more of detail in that northwest quarter which is of more interest to the present research.[1]

[1] It is for this reason that this, instead of the Amsterdam copy, is reproduced in the atlas of the Commission. The map was bought by me in Holland for the Commission, at the same time and place as that last above described—at Nijhoff's, in The Hague. It should be added that neither in the case of this map nor in that of either of the others bought for the Commission could anything be learned from the dealers as to the earlier history of the map. Each of the well-known firms in question had a large collection of such old colonial maps.

That either of these maps represents the condition of things in 1791 is not to be believed. On the site of Stabroek, at the mouth of the Demerara, there appear only plantations; the Moruca post is at the site it occupied before 1781; and the plantations on the west bank of the Essequibo are not so far seaward as they are known to have been in 1772.[1] The only date on either map is 1769, which (on the Hague copy) is given as the date of the burning of a forest in Demerara.[2] Between this and 1772, then, would seem to be the period represented in the main by this map. Chollet wished only to illustrate the Pomeroon district, and this during the interval was doubtless unchanged. It seems not improbable that even for this northwestern region he may have made use of that chart, by the surveyor Bowman, of the coast "as far as the Pomeroon and the post of Moruca," which the Director-General mentions in his letter of August 27, 1772. The boundary—here calling itself the "line which

Blue Book, "Venezuela, No. 3," p. 180.

[1] See letter of Storm van 's Gravesande, August 27, 1772. (Blue Book "Venezuela, No. 3," p. 180.) But, as pointed out on page 141, above, there is here an error in translation, the words "taken up" being impossible in this connection; the writer speaks only of *distances*, and of rods, not "roods." A piece of land "below Capoey" creek (*beneden Capoey*), and therefore close by the place where in these maps the plantations end, was granted one Jacob Citters on April 4, 1772. (Minutes of Court of Policy, May, 1877.)

[2] "Bois brulé en 1769."

according to the maps separates Dutch Guiana from the Spanish possessions"—is evidently that laid down by D'Anville.

Two very different maps of the Pomeroon, one of them by Chollet himself, the other by the rival surveyor, Van der Burght, were about this time in use in the colony and were sent to the home government. They were rude sketch maps showing only the lower Pomeroon (to the mouth of the Moruca), but meant as a basis for the concession of lands in that region.[1] It was their crudeness and mutual contradiction which led in 1794 to a careful survey of the district by the two surveyors jointly, under the eye of the Governor-General himself. The resulting map, drafted by Chollet, was transmitted to the Dutch Council of the Colonies in August, 1794. It must be borne in mind, in its study, that the batteries, the canals, the paths here shown, the town whose site is indicated, were only projected; it was but a plan for submission to the home authorities. The plantations so minutely laid out were as yet, as appears from the list on the map, only in small part granted, though

For his journal of this expedition and his letter of inclosure, see Extracts, No. 342.

Atlas, map 69. The coloring of the original does not appear in this reproduction.

[1] Both are in the collection at The Hague. Van der Burght's is dated December 14, 1790; Chollet's 1793. The only thing of interest about either is that Chollet places the Moruca post on the west of that river's mouth. For a discussion of this (which was changed in his more careful map of the following year) I must refer to my historical report.

many petitions were waiting. The only place of actual occupation shown by the map is the Moruca post; and even that is probably depicted as it ought to be rather than as it was. The project was still before the Council of the Colonies, and its realization still in abeyance, when, in April, 1796, the British assumed possession of the colonies.

Meanwhile, however, another and more notable map was under way. On the 28th of December, 1795, one Friedrich von **BOUCHENROEDER** submitted to the Colonial Committee of the newly organized Batavian Republic a petition for "a vacant governorship in one of the West India colonies." But that he understood "West India" in the wide sense suggested by the territorial scope of the "West India Company" appears a moment later when he adds:

"And, since the possessions of the State on the coast of Guinea are the least known and since they still need (or might well be given) the most improvements and new institutions, therefore this government, if intrusted to me, would give the most opportunity for usefulness to the State."

And that Guinea was no slip of the pen for Guiana is shown by the essay which he incloses in proof of his acquaintance with colonial needs, a thirty-page memoir, entitled:

"Reflections on the Fundamental Laws and Measures to be observed in the establishing of new Colonies and

Plantations, with reference to the profits which the Commonwealth of Holland might have from the Colonies, both in the East and the West Indies, especially at the Cape of Good Hope and on the Coast of Guinea; by F. von Bouchenroeder, The Hague, 5 Dec. 1795."

These papers are in vol. 901 of the West India papers of the Rijksarchief (pp. 92–127).

The memoir is written in German, with a parallel Dutch translation, and shows acquaintance with Guinea, but not with Guiana.

With his petition the applicant submitted a sketch of his career. Of his German birth he says nothing. In 1770, at the age of thirty-seven, he had entered the Prussian service, with the rank of ensign. Thence in the same year he passed into the Hessian service, with the rank of lieutenant, and in 1784 became a captain. In 1785 he went over into the service of the province of Holland as "captain proprietary" of a company in the "Jaager Corps" of Salm, of which regiment he was in 1787 made major. In the internal troubles which followed he had played a considerable part until the opening of 1793, when his sympathy with the popular party was by the conservatives rewarded with dismissal; since that date he had been in retirement near Hanau, in Germany.[1] He was, in short, a

[1] This "Staat van Dienst" is in full as follows:

"Staat van dienst van Frederich van Bouchenroeder oud 37 jaaren getreeden in Pruissischen dienst, in het jaar 1770, in Qualiteyt van Vendrig.

"In Hessischen dienst in het jaar 1770, in Qualiteyd van Lieutenant, en Capitain in 1784.

"En laatstelyk overgegaan in Hollandschen dienst, in het jaar

soldier of fortune, who had spent as a Hollander eight of the two and sixty years of his varied life, and now again sought Dutch employment.

His petition was referred to the subcommittee on police and justice, which on February 10, 1796, recommended that his essay be sent for examination to the authorities on the Guinea coast, and that his application meanwhile be put on file. Nothing daunted, the old soldier vigorously turned his hand to a new task; for barely six months later, on August 26, 1796, in the session of the Committee on Colonies, "there was read a letter from F. van Bouchenroeder, written here at The Hague on the 24th of August, transmitting a map, by him conceived and drafted, of

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1785, in Qualiteyd van Captain proprietair van eene Compagnie by het Jaager Corps van Salm; tot Major by hetzelve Corps benoemd zynde, in het jaar 1787, en het gecommandeerd hebbende als Commandant, zeedert de opregting.

"In 1787 by het Burgerleger te Woerden, etc., gediend hebbende als Quartier Meester Generaal; en by de Verdeediging van Amsterdam, by het etablisseeren der Posten van Amstelveen, Ouwerkerk, Kalverslaan, en Overtoon, gefungeerd hebbende als Generaal Commandant.

"Burger zynde te Delft en Amsterdam, zeedert den jaare 1787.

"Gedimitteerd den 1n Jann. 1793, toen het Corps Jaagers uyt den particulieren dienst van de Provintie van Holland overgong in dienst der Generaliteyd, en dat om reeden van zyn by alle Gelegendheyd gemanifesteerd patriottismus, en in zonderheyd om dat hy in bovengemelde Qualiteyd gediend had by het Burgerleger.

"Zeedert gewoond hebbende op zyn buytenverblyf te Emrichshof by Hanau, en niet gepensioneerd, en ook niet weederom geemployeerd zynde gewest, in dienst van eenige Mogendheyd.

"Bygewoond hebbende de Campagnes van 1777, en van 1787.

"VAN BOUCHENROEDER."

the rivers Essequibo and Demerara, and stating his intention to have this draft engraved, and, with the approval of this Committee, to publish it." As soon as the map should be engraved it was his intention to present the original to the Committee, together with certain printed copies.[1]

The map was referred for examination to the subcommittees on police and justice and on troops and defense, and on September 21, 1796, they jointly reported thereon, recommending that "in recognition of the knowledge, skill, and research put forth by F. Bouchenroeder, for the sake of being of use to the Fatherland, in the preparation of this handsome and very well worked-out map," the committee should, for the encouragement of his enterprise and as a contribution toward the costs, subscribe for a dozen colored copies and permit him to dedicate the work to

[1] Bouchenroeder's letter is not to be found among the papers of the committee; but its contents appear from the committee's minutes, and from the report of the subcommittees, as here given.

. . . "geexamineerd hebbende een Request van F. van Buchenröder waarby hy aan het Committé presenteerd eene proef van eene door hem vervaardigde Generaale Kaart der Bataafsche Colonien gelegen in Guiana welke hy voorneemens is in twee bladen aen het Committé optedraagen en waervan het tweede blad zal bevatten de Grens van Suriname aan de Rivier Marowyne welke hy voorneemens is, zo het de approbatie van het Committé mogte wegdragen te laaten graveeren, en op inteekening uittegeeven voor den prys van f. 6 .. en geillumineerd voor f. 9 .. per stuk en alsdan de Origineele teekening met eenige gedrukte exemplaaren ter dispositie van het Committé inteleeveren versoekende deswegens met de intentie van het Committé te worden vereerd."

itself; and, in case the execution of the printed map should be satisfactory, should further manifest to him its approbation.[1]

The map was accordingly engraved, and on June 21, 1798, Major von Bouchenroeder transmitted to the colonial committee, with a letter of inclosure,[2] the dozen colored copies. That the promised gift of the original manuscript of the map was also not forgotten is proved by the

[1] . . . "dat het Committé uit aanmerking van de kunde werkzaamheid en aangewende poging van den persoon van F. Buchenroeder om den Vaderlande nuttig te zyn, in het vervaardigen van deeze schoone en zeer wel uitgewerkte kaart by favorable Resolutie aan hem zoude kunnen declareeren dat het Committé daerop, tot aanmoediging van en voortgang in dit zyn werk en te gemoedkoming van de kosten, welke hy tot het graveeren van deeze Kaart zal moeten maaken, zoude kunnen doen inteekenen voor twaalf stuks geillumineerde kaarten tegens den prys door hem gestipuleerd, ten einde de Comptoiren van dit Committé alsmede de Colonien daarvan kunnen worden voorzien.

"En dat wyders aan hem zoude kunnen worden geaccordeerd om die Kaart aan het zelve optedraagen en de executie derzelve wel bevindende hem nader zyn genoegen hierover te manifesteeren."

[2] "Aan het Committé tot de Zaaken der Colonien, en Bezittingen van de Bataafsche Republicq, in America, en op de kust van Guinea.

"MEDEBURGERS:

"De ondergeteekende heeft de Eer aan Ulieden hiernevens te presenteeren 12 geillumineerde Exemplaaren der kaart van Essequebo & Demerary, met de daartoe behoorende Tabellen dewelke de ondergeteekende met Ulieder Approbatie heeft doen graveeren, en aan Ulieden heeft opgedragen.

"Indien de executie deezer kaart Ulieder Approbatie waardig, en dezelve voor de Bataafsche Natie van Belang, en Nut is, zoo zal de Ondergeteekende zich der Moeiten tot dit Werk besteed, met genoegen herinneren.

"Verzoekende dat het Ulieden mag behagen om de nodige orders te stellen, ten einde den ondergeteekende de Inteekengel den te doen toekoomen, bedragende voor 12 geillumineerde

fact that this manuscript is now to be found among the Committee's papers. A reproduction of it I herewith submit.

Atlas, map 70.

Interesting are the differences between this manuscript, prepared, as has been seen, in 1796, and the engraved map of 1798. That it was Bouchenroeder himself who was responsible for these changes may be inferred from a letter written by him to the Committee on August 6, 1798, wherein he remarks:

"The undersigned trusts that, while the original drawing of this region received your approval, the execution of the engraving will give you not less pleasure, inasmuch as the plate, as compared with the drawing, has been further notably augmented."

It is not unlikely that in the course of the proof reading some of these improvements of the engraved map had been entered on the manuscript itself; but in any case striking differences remain. The manuscript is wholly in Dutch; the engraved map is translated, so far as possible, into French. But the title is much

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Proefdrukken met Tabellen, a tien guldens per Exemplaar, de somme van f. 120.

"Waarmede de ondergeteekende na toewensche van Heil zich met Eerbied noemt.

"UWen dienstvaerdigen Medeburge,

"F. V. BOUCHENROEDER,

"*Major.*

"Haag den 21 Juny 1798.
Woonende op't Hooge Zand
Let V. No. 288."

more than translated. In the manuscript it runs:

"General and Special Map of the Colonies of the Republic of the United Netherlands lying in Guiana along the sea-coast, the rivers Pomeroon, Essequibo, Demerara, from the frontiers of Berbice to the river Moruca on the frontier, in the Spanish possessions Orinoco."

If this is but broken English, it is because it is a translation of broken Dutch. The map, in accordance with its title, breaks off just west of the Moruca; and at the west of this river, in the neat hand of the author, one reads along the margin the words (of course in Dutch) "the boundary line between Spain and Holland," and then, written at a slightly changing slant, "is about 16 [Dutch] miles farther west, on the river Barima, close by the river Orinoco." The engraved map likewise goes no farther west than the Moruca; but all mention of the boundaries has been struck both from the title and from the margin of the map, while in the upper right-hand corner of the map has been inserted (what is wanting in the manuscript) a little inset map of Guiana from the mouth of the Berbice to the mouth of the Orinoco, wherein the Dutch boundary is set at the Barima, and beside it an "old Dutch post on the frontiers of the Spanish possessions."

Atlas, map 46.

As to the sources of Bouchenroeder, whether for these changes or for the map itself, I have been able to learn nothing from the documents. That, however, it was a compilation made in Holland by one who had no direct acquaintance with the Guiana colonies is clear from the circumstances. To such acquaintance Bouchenroeder makes no claim; and from almost the beginning of his task those colonies had been in the hands of the British, who were at open war with the Dutch. Nor is any evidence to be found that he made this map at the instance or subject to the instructions of anybody. That he had access to official maps and papers, however, can not be doubted, for its northwestern portion is but a reproduction of the unpublished chart of Chollet sent the colonial committee in 1794, and its details as to plantations and cultures in the older parts of the colony could scarcely have been gained without study of its land records.

Atlas, map 69.

If any doubt remained as to Bouchenroeder's want of personal knowledge of Guiana or as to the method of his map-making, both might safely be inferred from the further petition submitted by him on August 6, 1798:

"Inasmuch," he urged, "as it is now known

that, although there exist maps of the other portions of the mainland of Guiana, both of Berbice and of Surinam, these nevertheless, not to mention a multitude of errors and of changes which have taken place since the preparation of the maps, were drawn each on a different scale, and are therefore not suited to make up a general map; therefore the undersigned has taken counsel with himself to further extend his map of Essequibo and Demerara and to prepare on the same scale maps of Berbice and of Surinam, and moreover to have engraved a general map of all Guiana, from the river Orinoco to the Amazon river.

"The undersigned, having posted himself upon this subject and having taken the trouble to get the most trustworthy information possible, has become aware that the engineer Heneman, who is employed in the Amsterdam Chamber of this Committee, in earlier days journeyed in these regions by order of the Government and made many surveys; wherefore the undersigned concluded that for the furtherance of his undertaking he could not do better than address himself to the engineer Heneman. And so to this end he repaired to him at Amsterdam and apprised him of his

intention, proposing that in case the engineer Heneman was in a position to supply him, the undersigned, for his draft already made, such information that he could form the most accurate maps possible of this region, then he, the undersigned, would like to carry out this enterprise in partnership with the aforesaid Heneman.

"To this the engineer Heneman showed himself favorably disposed in so far that, in case the Committee would grant its approval thereto, he would then be willing to work in partnership with the undersigned on the preparation of good maps of this sort."[1]

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[1] "Terwyl het nu bekend is, dat ofschoon van de verdere gedeeltens op de vaste kust van Guiana, kaarten existeeren zoo van de Berbice, als van Surinaame, dezelve echter behalve een meenigte gebrekken, en veranderingen, welke zedert het vervaerdigen deezer kaarten hebben plaats gehad, iedere kaart op zich zelve naar een byzondere maatstaf vervaerdigd zynde, derhalve niet geschikt zyn eene generaale kaart te kunnen formeeren, zoo is de ondergeteekende by zich te raade geworden, om zyne kaart van Essequebo & Demerary verder te extendeeren en naar denzelfden maatstaf de kaarten van de Berbice en van Surinaame te vervaerdigen, en benevens eene generaale kaart van geheel Guiana, van de Rivier Oronoque tot de Amazone Rivier, te doen graveeren.

"De ondergeteekende zich op dit sujet geinformeerd, en moeite gedaan hebbende, om zoo veel mooglyk goede narigten te bekoomen, is ontwaar geworden, dat den Ingenieur Heneman, welke by dit Committé, Kamer van Amsderdam geemployeerd is, in vroegere tyden op order van het gouvernement, in deeze Landen was gereisd, en veele meetingen gedaan heeft, weshalve de onderget. had geoordeeld, dat ter bevordering van zyn onderneemen, hy zich niet beter zoude kunnen addresseeren, dan aan den Ingenieur Heeneman; hy zich ten dien einde ook by hem te Amsterdam heeft begeeven, en van zyne intentie kennis gegeven,

Bouchenroeder begs, therefore, that Heneman be permitted to aid him; but also—

. . . "**that, at need, it be permitted to him and to the aforesaid Heneman to ask from the archives of the Committee such information and such maps as should be found necessary for the completion of their work.**"[1]

The Committee deferred its consent until it should receive a request to the same end from Heneman. No such request ever came; and, though Bouchenroeder alone completed and in 1802 published a map of Berbice, the remainder of his scheme seems never to have been carried out.

The colonies were lost in 1803, and we are at the end of the official map-making of the Dutch in western Guiana. An official map in the full sense—undertaken by order of Government, executed at its expense, and published under its sanction—there never was. Such maps of this

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met propositie, om, indien den Ingenieur Heneman in staat was, hem ondergeteekende tot zyn bereids vervaerdigd concept, zodanige narigten te kunnen suppediteeren, om de meest mooglyk accurate kaarten van dit gewest te kunnen formeeren, dat alsdan de onderget. deeze enterprieze in compagnie met voorn. Heneman wilde doen. . . .

"De Ingenieur Heneman heeft hiertoe in zoo verre zyne bereidwilligheid betuigd, dat wanneer het Committé zyne approbatie daartoe wilde verleenen, hy alsdan met den onderget. gemeenschappelyk zoude willen werken, om zodanige goede kaarten te vervaerdigen."

. . . "dat het des noods aan den Onderget. en voorn. Heneman, mag worden gepermitteerd uit de Archiven van het Committé zodanige informatien, en kaarten te verzoeken, als tot het compleete werk zouden mogen nodig zyn."

region as can lay claim to that quality in any sense I have described. Few of them so much as suggest a western boundary, and of these not one was ever put forward as a statement of that boundary—not even by the West India Company to the State, or by one branch of the Government to another. The only map, so far as Dutch official records show, which ever received this distinction was the map of the French geographer D'Anville; and that not on the ground of any official knowledge or authority, but only of a general repute for accuracy.

II. SPANISH MAPS.

The story of Spanish maps from official sources is a much briefer one. Though there is mention in the documents from Spanish archives printed by Great Britain and Venezuela of sundry maps sent to the home government by the Spanish colonial authorities on the Orinoco, none of these have either been published or laid before the Commission. Maps officially published in Spain are, however, not wholly wanting to the printed literature of the subject.[1]

[1] It should be pointed out here at the outset that for lack both of time and of opportunity I have made no such careful search for Spanish maps as for Dutch, and that of such maps as have come into my hands I have learned scarcely more than they tell us themselves.

The **OLDEST SPANISH MAP OF THIS REGION** known to me is that printed at Madrid in 1877, by the Spanish Government, in the atlas to the *Cartas de Indias.* The internal evidence of matter and handwriting shows it to have been made shortly after the middle of the sixteenth century; and not only these, but its Spanish text and its presence in the Spanish archives, attest its Spanish source. But there is nothing in the map itself which suggests for it an official origin; and its modern editor tells us nothing of it whatever. It shows considerable knowledge of the Guiana coast, and especially of the Essequibo, with its branches and neighbor streams;[1] but it belongs to a period antedating all known Dutch acquaintance with Guiana, and has, therefore, no direct bearing on the question of boundary.

Atlas, map 61.

One other such Spanish sketch map, of much later date, comes to us through the hands of the Dutch. It is that ascribed to the Jesuit fathers of the exploring expedition, in 1747, to the sources of the Cuyuni and Mazaruni. The copy of it stolen for the Dutch governor of Essequibo and by him handed over, perhaps not without additions, to the West India Company in 1750,

[1] More as to this may be found in my paper "On the historical maps."

I have described among the Dutch maps of its period.[1]

The earliest published Spanish map to treat this region with any minuteness of detail is the great map of South America by the royal geographer, Juan de la **CRUZ CANO Y OLMEDILLA**, issued at Madrid in 1775.[2] What official sanction, if any, this map may have had I have not learned; but there can be no doubt that its information must have been drawn largely from official sources.

Atlas, map 50.

Three years later there was prepared, in the Spanish archives of the Indies, a map of Guiana whose claim to an official character is explicit and complete. It calls itself a—

"Corographic map of Nueva Andalucia, . . . compiled from the best observations and latest accounts by Don Luis de **SURVILLE**, second official of the Archives of the Secretariate of State and of the General Control of the Indies, by order of his Chief, the Honorable Señor Don Josef de Galvez, in the year 1778."

Atlas, map 71.

It was published in the following year in Fray Antonio Caulin's Historia de la Nueva Andalucia, for which it had probably been prepared—a book which, after lying a score of

[1] At pp. 131–134 above.

[2] The Spanish-Dutch boundary line, as laid down on this map, is described by Secretary Mallet-Prevost, in his paper on the Cartographical Testimony of Geographers, at pp. 78–81 of this volume.

years in manuscript in the censor's hands, was now put forth "by the order and at the expense of His Majesty" from the official press of the department of the Indies at Madrid; yet not without abundant editorial additions describing the progress of Guayana in the interval. Even with these additions, as Humboldt long ago pointed out, the text and the map are often enough in conflict. The boundary laid down in Surville's map agrees with that of Cruz Cano's, except that it gives to the Dutch the whole of the confluence of the Cuyuni and the Mazaruni with the Essequibo.

Just at the end of the century there was published the great official "Map of the greater part of South America, comprising the countries through which is to pass the boundary line dividing the dominions of Spain and Portugal, made in pursuance of Royal Order, by Lieutenant-General Don Francisco **REQUENA** in the year 1796."[1]

As regards the Dutch boundary, the line appearing on this map agrees in the main with that shown by the maps of Cruz Cano and Surville; but it cuts the Pomeroon in mid-course, instead

[1] "Mapa Geográfico de la mayor parte de la America Meridional que contiene los paises por donde debe trazarse la linea divisoria que divida los dominios de España y Portugal, construida en virtud de Real Órden por el Teniente General Dⁿ. Francisco Requena en el año de 1796."

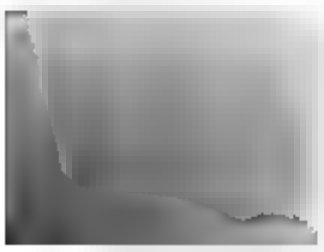
of giving that river wholly to the Dutch, while on the other hand, it leaves to the west a slightly larger territory at the junction of the Cuyuni and the Mazaruni.[1] So far as may be judged by simple comparison, Requena's treatment of the region between Orinoco and Essequibo is a careless one, showing little information beyond that to be gained from Cruz Cano and Surville. It was perhaps the belated sheets of this map which the Dutch envoy Ruysch had in mind when in December, 1801, he wrote from Amiens of "the maps which are now being engraved in London and will be ready next May," from which the Spaniards would for the first time learn the

Extracts, No. 346.

nature and worth of the rivers lying just east of the Orinoco.

While there have fallen under my eye no other Spanish official maps of this region, there remain certain **MAPS FROM ECCLESIASTICAL SOURCES** which have a quasi-official character. As is well known, the conversion of the Indians was always

[1] Attention should be called to the curious fact that all three of these official geographers (Cruz Cano, Surville, and Requena), while showing one river Pomeroon ("Pumaron," "Poumaron") east of the boundary line, show another Pomeroon (under the old spelling "Baurum" or "Bauron") much to the Spanish side of that line; and, besides a Moruga (the name appears on Cruz Cano's map only) just at the west of the boundary, have also a "Moroca" (Requena writes "Morocoi") west of the other Pomeroon—Cruz Cano and Surville, more oddly still, locating on this more western Moroca the Dutch post ("la Posta"), which perhaps they deem a Spanish one.



made a leading object of the Spanish polity, and to this end the missionaries were often intrusted with civil as well as religious functions. From 1734, when the Catalonian Capuchin friars, who had already for some time been planting missions in this region, received as their province, by agreement with the rival missionary orders and with the sanction of the Spanish Government, the whole of the Spanish territory south of the Orinoco, from Angostura to the sea, the administration of their conquests to Christianity remained in their hands; and, in spite of some attempts at secular control by the Spanish governors, they were able to maintain it.[1] Their district being thus conterminous with the Spanish frontier, the maps sent by them to their superiors in Europe become of interest as evidence, not only as to occupation, but as to ideas of boundary. Of these maps, now treasured in the archives of the Capuchin order at Rome, certified manuscript copies of three have been laid before the Commission by the Government of Venezuela. At the same time, however, an English scholar, the Rev. Joseph Strickland, S.J., has published all these (adding another) in pho-

[1] For the agreement of 1734 and the royal approval of it, see Blue Book "Venezuela, No. 1," pp. 65–68, and Strickland, pp. 5, 6. The documents printed by Father Strickland bring out well the relation of the missionaries to the secular authorities.

Atlas, maps 72-75. tolithographic facsimile, in his "Documents and maps on the boundary question between Venezuela and British Guayana" (Rome, 1896).[1] The earliest of these maps, ascribed conjecturally by Father Strickland to about the year 1765, can hardly be of later date than about 1735, since it represents only the missions which are known from the mission lists to have been then in existence;[2] and both the topography and the handwriting add likelihood to this view. It is very probably a map of the missions at the date of the agreement of 1734. The second is known to be of 1771; the other two are ascribed by Father Strickland, and I believe with justice, to about 1779 and to about 1789 respectively. The first, second, and fourth show no boundary line. On the third is laid down what is apparently meant for a boundary, primarily (as is shown by the answering line at the west) a boundary of the Capuchin mission district, but incidentally, doubtless, of what the clerical mapmaker deemed the dominions of Spain. Leaving the coast a little to the east of a small river

[1] On account of the greater assurance of accuracy given by the photographic process (though a careful comparison shows the manuscript copies in entire agreement with the printed ones), it has seemed wise to reproduce in the atlas the facsimiles of Father Strickland.

[2] See the table appended to my paper "On the historical maps."

probably meant for the Moruca, this line runs south-southwest, crossing the Cuyuni somewhat below two branches which I take to be the Curumo and the Wenamu. Not far from the Mazaruni it turns directly south, crossing that river near the junction of a stream perhaps meant for the Caramang, and continues due south, crossing the Apanoni (Rupununi?) midway of its course, and approaching the corner of a lake (Amucu?). Thence it runs southeast to the edge of the map, cutting the Essequibo not far from its source.[1] It needs no pointing out that a line with these bearings would not, on any map of to-day, pass through the places named. It would much less pass through those suggested by Father Strickland in the interpretation given to this boundary line in his map at the front of his volume.[2] I can find no reason to suppose

[1] The key to the initials appearing on this map is (as Father Strickland informs us) unfortunately mislaid. The meaning of most of them may be readily guessed. Spanish establishments are indicated by capital letters; Dutch, by lower-case ones; streams, by numbers. The "N" surmounting another initial is doubtless for *nación*, Indian tribe.

[2] The considerations urged by him in his text (pp. xix, xx), though they deserve careful study, seem to me inadequate to support his conclusions. Nor can I quite understand on what ground, in the note on the map, he represents this boundary line (so different from that of the map prepared just at this time in the Spanish archives and put forth in a work issued "by the order and at the expense of his Majesty" from the press of the Spanish bureau of the Indies) as indicating the boundary "according to the Spanish claim."

that this line was, even in the mind of the map-maker, an authorized statement of a Spanish claim. What gives it perhaps a greater interest than such a statement is the possibility or probability that it is meant to represent, not a *de jure*, but a *de facto* limit of possession.

So far as Dutch official records show, and so far as I have been able to learn by research elsewhere, no map was at any time put forward by Spain in definition or support of any claim regarding the boundary between the Spanish and the Dutch possessions in Guiana. But both the map of Surville and that of Requena, beyond all other maps of this region known to me, whether Dutch or Spanish, have the stamp of an official character.

The official maps put forth in the present century, by Great Britain and by Venezuela, do not fall within the scope of this study.

ON THE HISTORICAL MAPS.

BY

GEORGE LINCOLN BURR.

ON THE HISTORICAL MAPS.

By GEORGE LINCOLN BURR.

The historical maps herewith submitted to the Commission[1] have been prepared to illustrate my report on the evidence of Dutch official documents as to occupation and claims in the region between the Essequibo and the Orinoco, and are an attempt to show graphically the conclusions reached by that report. For a full discussion of the evidence on which these conclusions rest, reference must, of course, be made to the report itself;[2] but it seems wise to submit with the maps a summary of the sources used for each, and especially to say a word as to those features which lie outside the scope of the report.

To begin with, it must be pointed out that no attempt has been made to deal historically with what the maps show of the region lying west of the Orinoco and of that lying east of the Essequibo. As to these districts there has at no time been a conflict of claim. The former was from its earliest settlement in the hands of the Spaniards, and the latter in the hands of the Dutch. The French had, indeed, for a

[1] Atlas of the Commission, maps 5–15.

[2] In vol. 1 of the report of the Commission.

time, about the middle of the seventeenth century, a mission on the Guarapiche, and for more than half a century thereafter traded with the Indians in that region; but no political claim was ever made by them to the district. The actual Spanish occupation of the corner of territory shown on the map between the Orinoco and the coast of the Caribbean Sea, though the Spanish had long occupied the region to the west of it and were gradually pushing eastward into it, belongs mainly to the eighteenth century. In like manner the Demerara was counted a possession of the Dutch from early in their occupation of the Essequibo and the Berbice, and trade there was monopolized by them from the seventeenth century on, though the river was not thrown open to settlement until nearly the middle of the eighteenth century. Its growth, however, was rapid, and before the end of that century its colonists had distanced in prosperity those of the older rivers.

Within the region bounded by the Orinoco, the Essequibo, the Caroni, and the Atlantic, it has been my aim to note every occupation, of whatever sort, for which I have found evidence in the documents. Mere sojourn, whether for exploration, for trade, or for conversion of the Indians, I have made no effort to chronicle. This must explain the absence from my maps of any conjecture as to one or two localities which have played a part in the discussions relative to the controverted boundary. But wherever there is reason from the documents to believe in the existence, if only for a portion of a single year, of any post or plantation or dwelling meant to be permanent, I have given it a place upon the map. Where the evidence was so

vague or conflicting as to warrant only conjecture I have placed the name at what in view of all the circumstances seems the most probable site, but have marked the site as conjectural. As the Dutch settled, not by villages, but by plantations, the changing limits of these are shown as accurately as possible.

Historical maps compiled thus from political documents and rude sketch maps can not escape uncertainty. And where, as here, not even the geographical features of the region with which they deal have as yet been accurately surveyed, that uncertainty must be the greater. I can not hope that these maps are free from error. But they at least rest on a patient comparative study of all the documents and maps, printed or manuscript, which have come into the hands of the Commission.

EUROPEAN OCCUPATION IN 1597.

The year 1597 is that in which the earliest expedition to the Guiana coast known to Dutch records set out from the Netherlands, and in which for the first time, so far as evidence has been adduced from any quarter, Dutchmen were seen within this district. The map may therefore fairly claim to represent the condition of the region at the beginning of Dutch acquaintance with it. European occupation is noted at two points only. **SANTO THOMÉ DE LA GUAYANA,**[1] whatever one may think as to its earlier existence or site, was in 1596, by the

[1] I have preferred this form rather than the modern Santo Tomé, or Tomas, not only because it is that now most familiar to English ears, but because it is the original spelling and is that most in use in the documents on which these maps rest.

indubitable testimony of the Englishman Keymis, to be found as a Spanish rancheria of some thirty houses at a point on the Orinoco near the mouth of the Caroni. This point, as seems clear from Keymis's statement, was not precisely at the junction of the Caroni, but at the point, a little below, known by Raleigh as Morequito's Port and occupied at present by the village of San Miguel.[1] As Professor Jameson has pointed out,[2] there is no tenable evidence for the existence of Santo Thomé earlier than 1591 or 1592, the date set for its foundation by Fray Pedro Simon; and the silence of Raleigh and of the Spanish documents lately printed by Great Britain make its whereabouts between that date and 1596 very uncertain. At some time between 1596 and 1618 it was, according to the common opinion of historians, moved down the river to the site, at the mouth of the little river Usupama, which is still known as Vieja Guayana. It seems not impossible that this took place as early as 1596 or 1597, on the arrival of Domingo de Vera with his ten shiploads of colonists; and the account given of the town by the Dutchman Cabeliau, at his visit there in 1598, seems at least as consistent with this as with the upper site. It has seemed wiser, however, in this map to place the town at the old site, from which it could, in any case, hardly as yet have been entirely removed.

As to the other point marked on the map, the conjectural **SPANISH FORT** in the Essequibo, there is far greater doubt. That, however, the Spaniards were this year in the Essequibo

[1] Cf. Raleigh's *Discoverie of Guiana*, ed. Schomburgk, pp. 73, 78, and p. 17, note.
[2] In vol. 1 of the report of the Commission.

is beyond question. Already in 1596 Keymis, while asserting that "farther to the eastward than Dessekebe, no Spaniard ever travelled," had reported that "In this river, which wee now call Devoritia, the Spaniards doe intend to build them a towne;"[1] and they were found there in 1597 by the expedition sent out by Raleigh under the command of Capt. Leonard Berrie, whose chronicler, Thomas Masham, tells us how the English were assured on this point.[2] Unpublished Spanish documents tell also of an expedition thither in this year, led by Ibarguen, the camp master of Domingo de Vera.[3] And it is not until late in 1608 that another Englishman, Unton Fisher, the "cousin" whom Robert Harcourt left in the Marowyn for exploration, reports it as important news, just learned through an Indian, that now the Spaniard "hath cleare left Dissikeebee and not a Spaniard there."[4] The oldest Spanish map of this region which I have seen—the "Map of the rivers Amazon, Essequibo, Orinoco, and the adjacent region," published in the official "*Cartas de Indias*,"[5] and belonging to the middle of the sixteenth century—shows not

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[1] Keymis, *Relation*, ed. of London, 1596, fol. B 4, verso.

[2] Masham, in Hakluyt *Collection*, ed. of London, 1811, iv, pp. 193, 194.

[3] Rodway, in *Timehri*, December, 1895 (p. 325), citing documents in the Spanish archives of the Indies. Cf. the Blue Book "Venezuela, No. 1," p. 4, where, however, the statement that he reported "white men" there is admittedly an error. He was in search of El Dorado, and is said to have reported that he "learned very much news of the men who were clothed and fighting with arms"—clearly the fabled Manoans. Rodway's article adds that he gave as a reason for not investigating this matter that, "not having sufficient men with him, he did not wish to tarry about the rivers," which may mean any of several things. It is much to be regretted that this document has not been published in full, and in its original tongue.

[4] "Relation of the habitations and other observations of the river of Marwin and the adjoining regions," in Purchas, *Pilgrimes* (London, 1625), iv, p. 1285.

[5] Madrid, 1877. Reproduced, as map 76, in the atlas of the Commission

only the course of the Essequibo, with the Mazaruni and the Cuyuni as its tributaries, and marks on the Pomeroon, the Moruca, the Waini, and the Barima, the name of the Indian cacique there ruling, but has on the upper Essequibo a note telling how an unnamed explorer—presumably the Spaniard whose explorations the map is meant to illustrate—in the year 1553 went up the river Essequibo with four canoes, and, crossing the divide, descended on the other slope into another river, and so into the great river Amazon, where he found so many people that he turned back.

All this, of course, falls much short of proving the existence of fort or of settlement; and there is in the earlier Dutch records nothing to suggest that the fort at Kykoveral was not built by the Dutch themselves.[1] In fact, the recorded need of a fort there in 1627 and the provision then made for its erection[2] would make this conclusion probable were it not that about the middle of the eighteenth century, when the old fort was dismantled and an attempt made to use its materials for other structures, the governor of Essequibo, himself an engineer of experience, declares it "an old Portuguese work, built extraordinarily tight and strong";[3] and were it not that the Dutch historian of Guiana, Hartsinck, writing in 1770, thinks the fort certainly Portuguese, because, as he says, the arms of that nation are cut on the arch of the doorway.

[1] My reasons for ignoring the statement of Maj. John Scott that the fort was built by the Dutch, under one Gromwegle, in 1616, I have set forth at much length in my report.

[2] See Extracts, No. 15.

[3] Blue Book, "Venezuela, No. 3," p. 134.

Unfortunately for the latter argument, the careful study of this escutcheon on the spot in 1845 and 1850 by the later and more careful Dutch historian, General Netscher, shows that the arms in question are nothing more than a simple cross.[1] And as for the dictum of the colonial governor, it is easier to believe that he could recognize the masonry as not Dutch than that he could discriminate between the Spanish and the Portuguese work of a century or two earlier, at a period when both nations were subjects of the Spanish King. Unhappily, too, for the theory of a Spanish origin, there is absolutely no other basis for the belief—as General Netscher, himself a high authority upon the doings of the Portuguese in America, long ago pointed out—that the Portuguese were ever at any time in the Essequibo. The simple cross which appears above the archway would have been a strange emblem indeed to be used by the Calvinistic Dutch in the early seventeenth century; but it was an emblem even more natural to the Spaniards than to the Portuguese.[2]

All this would seem to demand at least a conjectural suggestion of a Spanish fort in the Essequibo. That, if there, it was on the site of the later Kykoveral seems probable from the lack of all tradition of the existence elsewhere of such a fort or of ruins of one. The site, too, is similar to that of the island (Faxardo) first used by the Spaniards as a citadel in the Orinoco.

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[1] For his drawing of it see my report.

[2] General Netscher has personally told me that, having laid this question before many well-informed Spaniards and Portuguese, he has been uniformly assured that the cross, while frequently thus used by the Spaniards, was rarely so by the Portuguese.

There is only one other place for which there is historical claim of a Spanish settlement as early as 1597. The commander of the English expedition which in 1665–66 captured the Dutch colonies in western Guiana, Maj. John Scott, writing not long after that event, declares that "The first Christian that ever attempted to set footing on Guiana, to the southward of Oranoque, was Pedro de Acosta, a Spaniard, with two small corvils, 300 men, anno 1530, settled in Parema,[1] was drove thence by the Indians the same year, many slain, and their goods and chattles became a booty to the Careebs." But I infer from Professor Jameson's silence on this point that he found nowhere a confirmation of Scott's statement. None, certainly, has been found by me; and Scott's repute for veracity and accuracy, at least as to facts beyond the range of his personal knowledge, is not such as to make it necessary to take account of the else improbable episode.

EUROPEAN OCCUPATION IN 1626.

The year 1626 is the earliest in which we have positive and trustworthy evidence of any occupation by the Dutch within the region shown by the map.

That **SANTO THOMÉ DE LA GUAYANA** was now at the site indicated seems clear from the fact that here the English found and left it at their sack in 1618,[2] and that here the Dutch found

[1] Barima. It is the only name in the region which could well take this form, and Scott's spelling of the name elsewhere dispels doubt.

[2] See the accounts of Fray Pedro Simon and of Raleigh's informants, and their discussion by Mr. S. R. Gardiner, cited by Professor Jameson (in Vol. 1 of the report of the Commission).

it when they sacked it in 1629.[1] The reasons for hesitating to assign to the **DUTCH POST** in the Essequibo an earlier date than this and for placing it at this date on the site of Kykoveral are set forth at much length in my report.

EUROPEAN OCCUPATION IN 1648.

The year 1648 is that in which, by the treaty of Münster, Spain first recognized the independence of the Dutch and the existence of their colonial possessions. This date is of importance to the present research because of the claims based upon that treaty.

That **SANTO THOMÉ** was in 1648 at the old site, in spite of a removal which is reported in process at the time of the Dutch raid upon it in 1637,[2] seems to me probable from the absence of any counter tradition and from the fact that the French found it here in 1685. It is not improbable that the disaster of 1637 itself may have led the Spaniards to cling to the more defensible position. That down to this date there was in this region no Dutch occupation other than that at **FORT KYKOVERAL** is abundantly clear from the documents accompanying my report.

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[1] This seems clear from the description of its site copied by Jan de Laet from the journals of this Dutch expedition. There exists in the archives at The Hague a rude manuscript chart of the Orinoco from its mouth up to Santo Thomé, which is dated 1629, and is undoubtedly a product of this expedition. It represents Santo Thomé as situated just below a fork of the Orinoco. This may possibly be meant to indicate the confluence of the Caroni, but is more probably a misconception caused by the long island in mid-stream a little above the Usupama site of the town.

[2] Blue Book "Venezuela, No. 3," pp. 212–216.

EUROPEAN OCCUPATION IN 1674.

The year 1674 is that in which the old Dutch West India Company, whose trade monopoly included the entire coast of America, gave place to the new one, whose charter granted it on the American mainland only "the places of Essequibo and Pomeroon."

The evidence for the existence and duration of the **NOVA ZEELANDIA** colony on the Pomeroon and the Moruca will be found gathered more fully than hitherto in the transcripts submitted herewith; but for the locations and names the best authority is the map of Arend Roggeveen,[1] who used the reports and plans of Goliat, the engineer who laid out the colony. That there is some doubt whether the town and the fortresses projected for that colony and so long appearing on maps were ever actually completed I have pointed out in my report. That, in any case, they ceased to exist during the English invasion and the chaos which followed, and were never after restored, there can be no doubt. The Essequibo remained in Dutch possession, save during the brief period of the English occupation. The limits assigned to the plantations there are suggested by the account given by Adriaan van Berkel[2] of his visit in 1671 and by such official records as remain.

The reasons for retaining **SANTO THOMÉ** at its old site are the same as in the map of 1648.

EUROPEAN OCCUPATION IN 1703.

The year 1703 is that in which, by the establishment for a

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[1] In his *Brandende Veen*, Amsterdam, 1675.

[2] In his *Amerikaansche Voyagien* (Amsterdam, 1695), pp. 42–44.

little time of a post in the savannas of the upper Cuyuni basin, the Dutch of Essequibo reached the westernmost point which they are known to have occupied.

The limits of the **DUTCH PLANTATIONS** in the Essequibo in 1703 may be gathered with tolerable exactness from the earliest extant map of the colony, that of Maas,[1] in 1706. Of the **COLONY OF 1686–1689** on the Pomeroon and the Moruca we now know much more fully from the documents printed in the British Blue Book "Venezuela, No. 3," though there has at no time been a doubt as to its duration or extent. The location of the Pomeroon post established in 1679 is, I think, sufficiently shown by our finding mention of a "postholder in Courey"[2] and of an "outlier in Wacupo;" for that these refer to the same post I see no reason to doubt.[3] This, too, seems the inference of the compilers of the British sketch map. As to the **POMEROON POST** of 1703–1705, its existence and duration are learned from the muster and pay rolls; its whereabouts may be inferred from the fact that an "ancient post" is marked here in the Bouchenroeder map of 1796–1798.[4] The site is else a probable one, both from its use for the "Huis der Hooghte" by the earliest colony here and by its selection in 1779 as the best site for a fortified post by the Spanish reconnoissance of Inciarte. As to **THE SHELTER ON THE BARIMA**, the evidence is given in full in the transcripts and discussed at length in my report. The same is to be said

[1] Atlas of the Commission, map 59.
[2] Blue Book "Venezuela, No. 3," p. 64.
[3] For discussion of this identity see my report.
[4] Atlas of the Commission, map 70.

of the **CUYUNI POST** of 1703, whose duration is certain from the pay roll, but whose location, like that of the Barima shelter, is a matter of pure conjecture.

Of the **FRENCH FORT** on the Barima we learn through the letter of the Essequibo commandeur to the West India Company on October 12, 1689. His statement was not questioned by that most interested body, and there is no reason why it should be so by me. The exact location of the fort, however, is wholly matter for inference. It has seemed to me that those signs of earlier occupation noted on Barima Point by Lieutenant-Colonel Moody in 1807 and by Mr. Schomburgk in 1841[1] may much more plausibly be connected with this French fort than with that shelter of 1684, which is the only known nucleus for the tradition of a Dutch post on this river. The site was, moreover, a more natural one for the French of the islands, whose entrance to the Barima was by this door, than for the Dutch of Essequibo, who came to it through the inland bayous. But the permanence of trenches and of evidences of cultivation on a sand bank periodically overflowed by the sea is a point on which doubts may be permitted. How long the French were there can only be guessed.

EUROPEAN OCCUPATION IN 1724.

The year 1724 is that in which, with the beginning of the Capuchin missions, the Spaniards began in this region to extend their occupation southward from the banks of the Orinoco.

The limits of the **ESSEQUIBO PLANTATIONS** I have been able to guess only by striking a mean between the map of Maas

[1] Blue Book "Venezuela, No. 1," p. 194 (also in "Venezuela, No. 5," p. 3).

in 1706[1] and that of Storm van 's Gravesande in 1748,[2] guided somewhat by my study of the documents. The site of **CARTABO** is most clearly shown by the sketch map made on the spot by Heneman in 1772.[3] That the **NEW FORT** was already building appears from the correspondence of the colony. The continuance of the **WACUPO POST** is shown by the muster and pay rolls, and there is no reason to suppose it as yet changed in site. That the **CUYUNI** and **POMEROON POSTS** no longer existed is equally clear from the same sources.

The site of **SANTO THOMÉ** is no longer open to question. That the missions of **SUAY** and **CARONI** came this year into existence is also too well known to need discussion.

EUROPEAN OCCUPATION IN 1756.

The year 1756 is that in which the Spaniards of the missions reached the easternmost points known to have been occupied by them.

The limits of the **PLANTATIONS IN THE ESSEQUIBO** are now to be inferred with much confidence from the map of Storm van 's Gravesande in 1748; for the change in the interval could not have been great. The abandonment of **CARTABO** and of **FORT KYKOVERAL** for the seat of government, **FORT ZELANDIA** on Flag island, appears from the letters of the Essequibo commandeurs. My reasons for believing the **WACUPO POST** transferred in 1727 to the Moruca I have given in my report. That

[1] Atlas of the Commission, map 59.
[2] Atlas of the Commission, map 60.
[3] Atlas of the Commission, map 63.

its site on that river is that indicated, and not that appearing in the British sketch map, is certain from the minute account of its site given by Inciarte in 1779,[1] and is made more so by the map of Chollet.[2] For discussion of the site of the **CUYUNI POST** I must again refer to my report. The subject is too important and too intricate to be fully treated here. It may be stated, however, that I have felt obliged to let documentary evidence outweigh Indian tradition—especially such alleged Indian tradition as escaped the alert ear of Mr. Schomburgk. To identify the site, we have the contemporary and concurrent testimony of the postholder and the by-lier of the post and of the Director-General of Essequibo as to its distance from the mouth of the river, and that of the commander of the Spanish raiding expedition and of three of his companions as to its distance from the Spanish missions;[3] and in the locality thus so fully indicated we find an Indian name answering to that given by both postholder and by-lier as the place of the post. A conclusion resting on such evidence, even though there be two or three puzzling statements to be reconciled with it, seems to me to pass the limits of conjecture. That I have made no attempt to indicate the place of the island **CURAMUCURU**, where a Dutchman and a negro were in 1758 alleged to be dwelling, is because I have found no reason to believe these aught but wandering slave-traders, and because no such place

[1] Seijas, *Limites Britanicos de Guayana*, pp. 87–96 (pp. 84–89 of the English translation).

[2] Atlas of the Commission, map 68.

[3] Blue Book "Venezuela, No. 3," pp. 242–247 (also in Venezuelan "Documents," II, pp. 16–31). Extracts, No. 210.

seems to have been found by the Spanish expedition sent in search of them.

On the Spanish side, one has now to meet the puzzling problem of **THE MISSIONS**. The sources for our knowledge of the whereabouts of these are not few, but they are sadly discordant and sometimes contradictory. The lists of the dates of their foundation drawn up by the missionaries themselves do not always tally with each other. Certain of the missions, whose existence, though brief, is adequately vouched for by official and contemporary documents, do not appear in these lists at all. The still extant maps made by the missionaries themselves, so far as these have been laid before the Commission, are too crude to be a safe basis for locating them upon a modern map, and, moreover, they do not take account of all the missions destroyed. What especially adds to the confusion is the diversity of the names borne by the missions. Each regularly received besides the Indian name of its site—usually that of a stream[1]—that of the saint in whose name the mission was consecrated. But in practice only one of these titles was currently used. Divina Pastora de Guarimna, or Santa Rosa de Cura, came to be known only as Divina Pastora or Cura. Unfortunately, some are called now by one, now by the other of these names, and their orthography does not always remain the same. Even the early Spanish map-makers, Cruz Cano and Surville, were misled by this into making sometimes two missions out of one. Happily, the lists fur-

[1]Thus the Yuruari (for I take Yucuario, Yacuaria, Jacuaria, to be but variants of this word) gave a name to several sites, and some confusion has come thereby.

nished by the missionaries are on this point a great help.[1] Some of the missions, too, were transferred from one site to another, and without change of more than the Indian name. Thus Santa Maria, originally N. Señora de los Angeles de Amaruca, was long near the banks of the Orinoco before it was removed to the uplands overlooking the Yuruari; and the transfer of Santa Ana and Calvario first to the west of the Caroni and then back again to the east of that stream is a certain but confusing matter. To determine their most probable dates and sites I have made a careful comparison of all the mentions of these missions in the documents printed from the Spanish archives by Great Britain and by Venezuela[2] and in the papers and maps published by Father Strickland from the archives of the Capuchin order at Rome. I have been somewhat aided by the contemporary maps of Cruz Cano[3] and Surville,[4] which clearly rest on official sources, and by the more modern one of the Venezuelan geographer Codazzi,

[1] A list of 1761 may be found at p. 108 of Blue Book "Venezuela, No. 1" (also in Blue Book "Venezuela, No. 3," p. 259; Venezuelan "Documents," I, p. 223). Lists of 1788 are at pp. 324, 334, of Blue Book "Venezuela, No. 3" (Venezuelan "Documents," III, pp. 219–222). A list of 1797 forms pp. 58, 59, of Father Strickland's *Documents and Maps on the Boundary Question*. A list of 1799 is at p. 355 of Blue Book "Venezuela, No. 3" (more fully at pp. 460–469 of the *Documentos* described in the next note). A list of 1803 was used, and is given in substance, by an English traveler of 1818 (see note below). A list of 1813 is at p. 356 of Blue Book "Venezuela, No. 3." A list of 1816 is printed by Father Strickland, pp. 70, 71. Of those destroyed, incomplete lists are given at p. 270 of Blue Book "Venezuela, No. 3," and on the Capuchin map of 1771 (Atlas of the Commission, map 73). And partial lists are frequent—e. g., one of 1771 at p. 22 of Strickland.

[2] Including the valuable account of the missions in 1799 published by the latter State in vol. i. (pp. 460–469) of the *Documentos para la historia de la vida publica del Libertador* [*Bolivar*], Caracas, 1875.

[3] Atlas of the Commission, map 50.

[4] Atlas of the Commission, map 71.

based on personal study of the ground in the fourth decade of the present century; somewhat, also, by the accounts of travelers, notably that anonymous Englishman the journal of whose visit to these missions in 1818, with its accompanying map, formed the main basis of Humboldt's knowledge of them.[1] As regards those missions which lie nearest the Orinoco, my results, as of small importance to the present problem, may stand undefended. Regarding the missions nearer the Dutch frontier, a word of explanation may be needed. As to most of these frontier missions I have been largely aided by Dutch documents; and as these maps are meant primarily to set forth the evidence of those documents, it is these frontier missions, however uncertain their sites, which I could least ignore. Full discussion must be sought in my report; but a summary may be here of use.

To begin with those farthest to the east, our knowledge of the existence of that "**IN QUERIBURA, UP IN MAZARUNI,**" of that "**AT MAWAKKEN, UP IN SIPARUNI,**" and of that "**IN WENAMU, A BRANCH OF CUYUNI,**" rests on a somewhat hysterical letter of the Dutch postholder in Arinda to the Essequibo governor in 1756.[2] Had this worthy spoken merely of the presence of

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[1]Printed in the *Quarterly Journal of Science, Literature, and the Arts* (London), vols. viii, ix (1820). To the author's identity the only clew in his journal, as printed, is found in the initials *J. P.* attached to his map. The American commissioner, Baptist Irvine, who met him among the missions, and whose correspondence I have examined in the archives of the Department of State, says of him and his companion: "Two English gentlemen, formerly of Demerari, are now making an exact and complete tour of the Missions—noting every circumstance of any importance. Being creditors of this government, they are furnished with every facility for the purpose." Whatever his name, he was an open-eyed observer. He found, too, and used a mission report of 1803 which has not else been published. Humboldt expressly acknowledges his debt to this writer, and comparison makes the extent of the debt very evident.

[2]Extracts, No. 196, inclosure.

missionaries at these points, one might have believed them engaged in mere *entradas* for the purpose of recruiting Indians for the missions. But he speaks of the Spaniards as here strongly fortified; and the fact that Governor Storm van 's Gravesande himself was inclined to lend credence to the report makes it impossible for me to treat it lightly. As to that in Mazaruni, there is, moreover, the concurrent testimony of the colonist Couvreur.[1] It is on the basis of the latter's testimony that the strangers were only two or three days' journey (which the governor interprets by ten to twelve Dutch "hours") up the river that I have connected Queribura with Curabiri, the name of the fall of the Mazaruni at its junction with the Puruni. Of all recorded names of localities on the Mazaruni, it is this whose name most closely resembles Queribura; though, but for Couvreur's testimony, the mouth of the Carubung, much higher up, where a recruiting party of Spanish priests made a sojourn early in the present century,[2] might be a serious competitor for the conjectural location. Either name might easily sound like Queribura to an imperfectly trained ear. As to the mission "at Mawakken" there is no such clew. I can find in the region of the Siparuni no Indian name

[1] Extracts, No. 196.

[2] Capt. J. C. Alexander, in the *Journal of the Royal Geographical Society of London*, vol. ii (1832), p. 60, writing of the expedition of Hilhouse and Tichmaker up the Mazaruni in 1830, says: "The travelers learned from the Indians, that up the Coomarow creek there were other fine falls; accordingly they left the Mazaroony, and turned up the creek. No white men had ever been seen there before, except, twenty years ago, three Spanish padres, who had lived for a month or two at the mouth of the creek, and persuaded many Indians to accompany them to the missions of the Oroonoco." The Coomarow is a branch of the Carubung.

Hilhouse himself, in his own account of this trip (in the same periodical, vol. vii), says nothing of these fathers.

resembling this, and have therefore conjecturally placed the mission at a point, high up toward the source of that river, which seemed to me to fall on the natural route of the Spaniards on their way to the savannas of the Rupununi—an objective point which they are known to have had in view. In placing the mission in Wenamu at the junction of that river with the Cuyuni, I am guided only by the fact that Governor Storm van 's Gravesande mentions at this time two missions on the river Cuyuni, of which this may well have been the upper. It may be added that maps of the present century show an Accoway village on this site. In the great map of Spanish South America made by Requena in 1796 there is indeed a place on or near the head waters of the Wenamu which is marked with the conventional sign of a mission; but Requena uses this sign for much else, as, for instance, for the Dutch establishments on the Essequibo, the Demerara, and the Berbice. It is hence rash to assume that he intended this one as marking a mission, and a Spanish mission, even were it certain that he has adequate evidence for placing here anything at all. To make intelligible this startling advance beyond the Cuyuni of the Spanish missions at the middle of the eighteenth century, there must be borne in mind the Carib-Accoway war and the Accoway alliance with the Spaniards.[1]

[1] As Father Strickland has pointed out (p. xvii), "many missions were started which were never definitely established, . . . whilst several missions, such as Suay and Cavallapi, were afterwards suppressed." The lists of abandoned missions found in Blue Book "Venezuela, No. 3," p. 270, and on the Capuchin map of 1771 are by no means complete, as will be seen by the list appended to this paper. It is not unlikely that some missions, complete or incipient, have passed from record altogether.

To pass now to the north of the Cuyuni, the mission **CURUMO** is abundantly vouched for, and by those—the missionaries themselves—who should best have known. In one document of 1761,[1] indeed, the name is by the British translator read "Cummu," with a bracketed suggestion of Cumamo; but the mission of Cumamo is known from all later official lists of these missions not to have been established until 1767, while Curumo appears elsewhere with this very statement of its destruction by the Caribs.[2] That a mission of this name was situate on the river of the same name is intrinsically probable. What seems to make it certain is that a mission is shown at or near this site on the map of the Dutch governor, Storm van 's Gravesande, in 1748, on the little Spanish map handed in by him to the West India Company in 1750, and on the official Spanish map prepared in the archives of the Indies by the archivist Surville in 1778;[3] that we are told by the missionary prefect, Father Benito de la Garriga, that the reason given by a Dutchman for the destruction of this mission was that it lay so far to the east as to be beyond the line running south from the mouth of the Aguire;[4] and that by another prefect of the missions it is asserted, as a thing

[1] Blue Book "Venezuela, No. 3," p. 270. But compare Blue Book "Venezuela, No. 1," pp. 85, 118.

[2] It needs hardly to be pointed out that there are few handwritings in which Curumu might not be misread Cummu.

[3] Atlas of the Commission, maps 60, 61, and 71. That it *is* the Curumo mission which is here shown must appear, I think, from a comparison of the passages here cited; but the evidence is set forth more fully in my report.

[4] Venezuelan "Documents," II, p. 151.

well known, that its site was less distant from the Cuyuni than Tumeremo's.[1]

That **MUTANAMBO** existed and was destroyed at the same time with Curumo is also explicitly testified by the missionaries; and such a mission appears by emblem on the map of Cruz Cano and by name as well on the official map of Surville. It is true that there also appears on both these maps a mission just opposite, on the western bank of the Curumo; but that Mutanambo was on the east of the river is not only testified by Surville's map, but seems a safe inference from the name, which is that of the stream emptying at this point into the Curumo from the east. It is known, too, that the savannas, to whose edges the missions in general so closely clung, extend here across the Curumo and along the Mutanambo.

The site at the mouth of the Curumo assigned the mission destroyed by the Caribs in 1754 is inferred from the letters of the Dutch governor of Essequibo.[2] For discussion of their meaning reference must be made to my report.

A point whose location is very puzzling is that "mission," or "village," or "port," of **YURUARI**,[3] from which set out in 1758 the expedition that sacked the Dutch post in Cuyuni. Was it

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[1] Blue Book "Venezuela, No. 3," p. 333 (also in Venezuelan "Documents," III, p. 218). For further mentions of the Curumo mission, see Venezuelan "Documents," II, p. 143; Strickland, p. 22. That the river now known as Curumo was known by that name at this time, and to those who mention the Curumo mission, appears constantly—e. g., in Blue Book "Venezuela, No. 1," p. 96. The "Curumo" from which the mission of Miamo was said (Venezuelan "Documents," II, p. 151) to be distant "about ten leagues," was, I think, the river, not the mission.

[2] Blue Book "Venezuela, No. 3," pp. 99, 100. And cf. atlas, maps 60, 61.

[3] British Blue Book "Venezuela, No. 3," pp. 232, 235, 238, 242, 243, 244. Venezuelan "Documents," I, p. 47.

perhaps "the settlement which," as in 1743 the prefect of the missions writes,[1] "it has been determined . . . to found on the banks of the Yuruari River, the Carib frontier, distant four days' travel from this city [Santo Thomé], where a fort is to be constructed, with four swivel guns, six armed men"—a foundation which, as appears from the context, was to be a day and a half beyond Divina Pastora? But this, if actually realized, was probably that establishment at Tupuquen which was destroyed by the Caribs in 1750 and not reestablished until 1770. Moreover, Yuruari is spoken of in 1755 as "the new village of Yuruary."[2] Both this phrase and the fact that "El Hato" (Divina Pastora) is mentioned in the same breath as a distinct village[3] show that it can hardly be Divina Pastora. It seems most probable that the mission of San Josef de Leonisa, better known later as Aima, which was founded in 1755, was at first established, not on the upper waters of the Aima, where we later find it, but near the junction of that stream with the Yuruari, and was then known by the name of the latter river—a conjecture to which color is given by its being once described as "the mission of Yuruari, with the invocation of San Josef de Leonisa."[4] The sites assigned to the remaining missions will hardly give rise to controversy.

As it was not found possible to set down on the map the

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[1] Venezuelan "Documents," III, p. 70.

[2] Blue Book "Venezuela, No. 3," p. 232.

[3] Venezuelan "Documents," I, p. 47.

[4] "La mision de Yuruario, con la imbocacion de San Joseph de Leonista." The mission of "San Josef de Leonisa" is on the maps of Cruz Cano and Surville placed on the Miamo, while "Yuruario" is placed, as a separate mission, low on the Aima—or what seems meant for the Aima. (See atlas of the Commission, maps 50, 71.)

complete names of the missions, much less the variant forms which appear in the records, there is appended to this paper a table of the missions, giving the most confusing variations in their names, and also the varying dates given for their establishment.

That I have recorded the presence of **SWEDISH PROSPECTORS ON THE BARIMA** in 1732 is a slight departure from my usage of noting only actual settlements; but the matter is of an interest and significance so unique as perhaps to warrant its insertion. The fact is established by the correspondence both of the Spanish and of the Dutch authorities in Guiana.

EUROPEAN OCCUPATION IN 1772.

The year 1772 is that of the ending of the long Zeeland monopoly of the control of the Guiana colonies. With the beginning of 1773 they passed into the charge of the West India Company as a whole, whose dominating influence was that of Amsterdam, and a general reorganization followed. This map shows the condition of things just prior to the transfer.

The limits of the Essequibo plantations are gathered mainly from the map of Siraut-Destouches in 1779.[1] As just at this time the growth of the colony was slow, the map may be taken as substantially true for the earlier year. Heneman's map of the mouth of the Cuyuni, 1772,[2] and his general map of these Guiana colonies, 1773–1775,[3] have been of some help.

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[1] Atlas of the Commission, map 66.
[2] Atlas of the Commission, map 63.
[3] Atlas of the Commission, map 64.

As to the **POSTS**, that of **MORUCA** remained at the old site—the site minutely described by the Spaniard Inciarte in 1779.[1] In or about 1757 there was, indeed, a post house built at the mouth of that river for the stoppage of runaway slaves and the shelter of travelers, and placed under the care of a planter there; but this was now abandoned and fallen to ruin.[2] The **ARINDA POST** had been moved up the river to above the mouth of the Rupununi. This had been ordered and attempted as early as 1750;[3] but in 1764 the post was still at the old site, near the mouth of the Siparuni. In 1765 it was actually transferred.[4] The **CUYUNI POST**, destroyed in 1758 by the Spaniards, was not reestablished (as is known both from the pay and muster rolls and from the correspondence of the colony with the Company) until 1766. Its site on the island of Tokoro was learned by Mr. Schomburgk from Indian tradition.[5]

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[1] Seijas, *Limites Britanicos de Guayana*, pp. 87–96 (pp. 84–89 of the English translation of this work). Cf. also the map ascribed to Chollet (Atlas of the Commission, map No. 68), which puts the post at the same site, though this fact is obscured by the map's error as to the direction of the river's course. It must be remembered that this map, though transmitted in 1791, was probably drafted between 1769 and 1772. The "Moracabura" of Inciarte is the "Haymarakaboera" of Chollet's map (the "Haimuracabara" of Schomburgk).

[2] Blue Book "Venezuela, No. 3," pp. 98, 106; "Venezuela, No. 1," pp. 90, 91 (also in Venezuelan "Documents," pp. 166–169); Hartsinck, i, p. 258. For discussion, see my report.

[3] Extracts, No. 172. Blue Book "Venezuela, No. 3," p. 95.

[4] Blue Book "Venezuela, No. 3," pp. 128, 134. It is true that in December, 1766 (id., p. 141), the governor twice complains of the failure of the Arinda postholder to carry out his orders, and that the orders meant may perhaps be those for the removal of the post. But the positive statement of the Zeeland Chamber (Extracts, No. 277) as to the location of the post and the later evidence as to its existence above the Rupununi convince me of its transfer. It seems probable that this took place actually in 1765. By 1767, at least, there was a capable postholder (id., p. 149), and the removal may have taken place then. Cf. also Venezuelan "Documents," II, pp. 150, 151.

[5] Blue Book "Venezuela, No. 5," p. 19. My reasons for implicitly accepting this are set forth in my report.

That in 1769 the post was drawn back to the island of Toenamoeto we know from the postholder himself.[1] The location of this island in the Tonoma rapids is suggested by its name and is confirmed by tradition, as reported by Mr. Schomburgk.[2]

BEYOND THE POSTS the only occupation by Dutchmen which is of record is that forbidden one in the Barima of which we learn from the letters of the Essequibo governor in 1765–1768[3] and from the record of the destruction of the plantations there in 1768 by the Spanish.[4] The only clew to their exact site in that river lies in the finding in 1779, by the Spanish reconnoissance of Inciarte, of a Dutch plantation at the point indicated on the map; but the connection of this with the occupation mentioned is very uncertain.

On the Spanish side, **SANTO THOMÉ** was in 1764 moved up the river to the narrows, or Angostura, above the Caroni, leaving at the old site only the forts and their garrison, henceforward to be known as Vieja Guayana, while Nueva Guayana was the town on the new site. With the city were moved also, in pursuance of a royal order, the Capuchin missions on the banks of the Orinoco below the Caroni, giving rise to a new brood of Indian villages above that river. Those of the interior remained as before, their number considerably increased. The only ones as to whose location there is likely to be question are Cavallapi and Supama. As to the place of

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[1] Blue Book "Venezuela, No. 3," p. 166 (also in Extracts, No. 270).

[2] Blue Book "Venezuela, No. 5," p. 19.

[3] Blue Book "Venezuela, No. 3," pp. 139, 140, 154; Extracts Nos. 243, 244, 249, 261, 267.

[4] Blue Book "Venezuela, No. 3," pp. 277–279.

CAVALLAPI I have been guided by the Capuchin map of 1771,[1] and especially by the location of the river Cavallapi on the Capuchin map of 1789.[2] Yet it is hard to reconcile with this the explicit testimony of the Dutch governor, Storm van 's Gravesande, who speaks of it as "close to the Cuyuni," and tells us on the authority of messengers of his own that it was "about two or three hours" or "about four hours" from the banks of that river.[3] The site of the mission of **SUPAMA** is hard to guess. The map of Cruz Cano locates it on the Yuruari below Tupuquen.[4] But the missionary map of Fray Carlos of Barcelona[5] puts it to the south of Aima, and this location is made more probable by the fact that the only river Supama (Usupama) known in this region is that which bears the alternative name of Avechica.[6] It seems to me, therefore, that Father Strickland is doubtless right in placing it (as does also the British sketch map) on this stream. But just where it may have stood I can but guess. Had it been at the abandoned site of the Avechica mission, it would probably have borne its name. For want of a better course, I have given it a conjectural location not greatly varying from that of Father Strickland, who may perhaps have been guided by the unpublished sketch maps of which he speaks.

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[1] Atlas of the Commission, map 73.

[2] Atlas of the Commission, map 75.

[3] Blue Book "Venezuela, No. 3," pp. 136, 143, 159.

[4] Atlas, map 50.

[5] Atlas, map 73.

[6] The "Uruan (Spanish Usupamo)" of the map prefixed to the Blue Book "Venezuela, No. 3," is, I think, an error. The stream formed by the confluence of the Avechica, or Usupama, with the Uruan is indeed known sometimes by the name of the one, sometimes by that of the other; but I have seen for the Uruan (Yuruani) proper no name except this.

EUROPEAN OCCUPATION IN 1796.

The year 1796 is that in which Great Britain took possession of the Dutch colonies in Guiana, never again to restore them to the Netherlands save during the year or so which intervened between the peace of Amiens in 1702 and the reopening of the European war in 1703. The map represents the colonies as they left the hands of the Dutch in 1796.

The limits of the **PLANTATIONS IN ESSEQUIBO** are known with much accuracy from the map of Bouchenroeder,[1] prepared in that year from materials available in Holland. For the coast region of the Pomeroon he clearly rests on the map made by the colonial surveyors in 1794,[2] which must be interpreted by the letter transmitting it.[3]

As to the **POSTS**, that of **MORUCA** was, from 1785 onward, as we know from the reports of the colonial authorities, at the mouth of the river. It was maintained by the Dutch to the end. That of **ARINDA** seems to have been abandoned when in 1792 the colonies passed from the West India Company to the State; at least it is absent thereafter from pay and muster rolls. That of the **CUYUNI**, abandoned at the death of its acting postholder in 1772, was, as we know from the pay and muster rolls, and from other documents, never again manned.[4] **IN THE BARIMA REGION**, near the mouth of the Aruka, the Spanish expedition of Inciarte found in 1779 a ruined Dutch plantation.[5]

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[1]Atlas of the Commission, map 70. As published in 1798 the map, though slightly corrected, represents the same period. See pp. 163–173 above.

[2]Atlas of the Commission, map 69. See pp. 162, 163.

[3]Extracts, No. 342. For discussion, see my report.

[4]For discussion of the evidence see my report.

[5]Its probable date and ownership I have discussed in my report.

On the Spanish side there were few changes. Two or three missions had been moved back to the east of the Caroni, and sundry new ones established. The only sites likely to give rise to discussion are those of Cura and of Tumeremo. In locating **CURA** I have been guided partly by the knowledge that it was a day's journey in high water from the Cuyuni,[1] partly by its known distance from the other missions.[2] As to **TUMEREMO** we know something of its distance from the Curumo, from the Cuyuni, and from the forest, and plentifully of its distance and direction from the other missions.[3]

Of more serious importance is the **SPANISH FORT ON THE CUYUNI**, near the mouth of the Curumo, whose existence, in spite of the admitted plans and orders for its establishment[4] and the belief of Humboldt and Schomburgk in its existence,[3] has been expressly denied. But this was in ignorance of the documentary evidence submitted to the Commission by the Venezuelan Government,[5] from which it seems clear that it was completed and manned in 1792 and was still occupied as late as 1809. The site assigned it is that at which its ruins are marked with care by Mr. Schomburgk in his great unpublished map of 1744 examined by me at London.

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[1] Blue Book, "Venezuela, No. 3," p. 327 (also in Venezuelan "Documents," III, p. 230).

[2] Blue Book "Venezuela, No. 3," pp. 327, 328. Venezuelan "Documents," III, pp. 214, 230. *Documentos para la historia . . . del Libertador*, I, pp. 487, 488. My result does not differ from that reached by Codazzi and by Father Strickland.

[3] Blue Book "Venezuela, No. 3," pp. 327, 329; (also in Venezuelan "Documents," III, p. 230). Venezuelan "Documents," III, pp. 60, 214. *Documentos para la historia del Libertador*, I, 468. Strickland, p. 58. My result agrees substantially with the maps of Codazzi, Hebert, Schomburgk, and Father Strickland; in fact, with all known to me except those prefixed to the Blue Books, whose sources for this point (as for the omission or different location of Cura) I have not learned.

[4] Blue Book "Venezuela, No. 3," pp. 326–353. Venezuelan "Documents," III, pp. 212–263.

[5] First printed late in 1896, in *The Case of Venezuela*, pp. 259–269. Now reprinted in vol. ii of the report of the Commission.

EUROPEAN OCCUPATION IN 1803.

The year 1803 is that in which the colonies of Essequibo and Demerara, after having from March, 1802, to September, 1803, been again the property of the Dutch, passed finally out of Dutch into English hands, though not actually ceded till the end of the war, in 1814. The map seeks to show, therefore, the extent of that final Dutch ownership which must have been the basis of the treaty of cession.

The changes from the territorial condition of things in 1796 are so slight as to need little comment. If others had taken place, they are unknown to the Dutch records of the brief period of reoccupation. Lands in the Pomeroon had been largely taken up, but the grants had not passed the Moruca.[1] No **POST** was now maintained save that on the **MORUCA**, which was at the old site.[2]

On the Spanish side there were no new missions; but sundry posts had been established in the lower Orinoco.[3]

Mr. Schomburgk in 1841 found far up the Barima an Indian tradition "that, at the commencement of the century, a white man . . . had advanced so far inland as the Herena River." "The Indians," he says, "showed us the place where he had cultivated sugar, and they told us that he had possessed a schooner and several punts, with which he carried on a timber trade. The Indian, in his expressive language, called the former settlement 'The last place of the white man.'"[4]

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[1] Extracts, No. 349.
[2] Extracts, Nos. 350, 351.
[3] Blue Book "Venezuela, No. 1," p. 154.
[4] Blue Book "Venezuela, No. 1," p. 215 (also in Venezuela, No. 5, p. 12).

Mr. Schomburgk conjectures that this was "very likely a Dutch settler." His mode of life, as described, certainly suggests a Dutchman, an Englishman, or perhaps a Frenchman, rather than a Spaniard.

GENERAL VIEW OF EUROPEAN OCCUPATION, 1597-1803 (1814).

This is an attempt at a conspectus of the results reached by the earlier maps. Dates of occupation and abandonment are given, so far as possible. Lack of space on the maps forbids certain explanations which are to be found on the special maps. It was impossible to indicate on this general map, in the same way as on the special ones, the territory occupied by the Dutch plantations; but an attempt has been made to show on the coast, and on the Essequibo and its branches, the farthest points at any time reached by agriculture or by mining (taking no account, of course, of the cassava grounds at the posts—the mere kitchen gardens of those stationed there). In the case of the Mazaruni, however, the site of the extreme plantations (for reasons pointed out in my report, to which I must refer for all discussion as to these limits) is matter of inference only.

The dates assigned the several missions are those which seem to me most plausible. The variants will be found in the table hereto appended.

CAPUCHIN MISSIONS OF GUAYANA.

Date of foundation.	Date of abandonment.	Indian name of site.	Invocation (saint's name).
1724	1762	Suay	La Purisima Concepcion.
a 1724	*b* 1803+	Caroni	S. Antonio (*later* La Purisima Concepcion).
1726	1728	Amaruca	Sta. Maria (Nra. Señora de los Angeles).
c 1730	1803+	Yucuario (Jacuaria) (Yuruari?)	
1733	1803+	Cupapuy	S. Josef (José).
1734	1803+	Jacuario (Yuruari?)	S. Francisco de Alta Gracia (*commonly known as* Alta Gracia).
1735	1735?	Unata	S. Miguel.
1779	1803+		
d 1737	1803+	Guarimma (Yuruari)	Divina Pastora; *called also* El Hato ("the cattle-farm").
173–?	*e* 1740	Payaraima	Sta. Barbara
1740	1760?	Guayaraima	
1742	1742	Tipurua	?
1760	1769		
1743	*f* 1750	Cunuri	?
1743?	*f* 1750	Tupuquen	S. Felix del Cantalicio.
1770	1803		

a Caroni is by the English traveler of 1818 (perhaps on the basis of the mission-list of 1803) said to have been founded in 1721, or 1722. All other authorities give 1724; and this is probable, since Suay was the mother mission and capital till its end, in 1762.

b "1803+" means that the mission remained in existence later than 1803. All such missions, without exception, endured until the revolutionary troubles of 1817.

c Santa Maria, reestablished at Amaruca in 1730, was not moved to Yucuario until after 1740.

d The list of 1813 says 1746.

e Destroyed by the English raid of 1740, but restored.

f According to the Spanish accounts, five missions—Cunuri, Tupuquen, Miamo, Curumo, and Mutanambo—were raided by the Caribs in 1750 (all but Miamo being destroyed). But in the Dutch correspondence of Essequibo we learn, in March, 1751, of three raided in January of that year, and in August, 1752, of two "lately" destroyed.

Capuchin missions of Guayana—Continued.

Date of foundation.	Date of abandonment.	Indian name of site.	Invocation (saint's name).
a 1746	1803+	Palmar	S. Miguel.
1746?	*b* 1750	Curumo	?
1748	1803+	Miamo	Nra. Señora de Monserrate.
174–?	*b* 1750	Mutanambo	?
c 1752	1803+	Carapo	S. Fidel.
1753	178–?	Aguacagua (Aguacava)	?
1754	1803+	Murucuri	Sta. Eulalia.
1755	1803+	Aima (Yuruari)	S. Josef de Leonisa.
1757	1803+	Guasipati	Nra. Señora del Rosario.
175–	1758	Terepi	?
1758	1758	Avechica	S: Juan Bautista.
1783	1803+		
1760	1769	Piacoa	Sta. Ana (at these three sites successively).
1769	177–	Paracaicuro	
177–	1803+	Puga	
1760	1768	Casacayma	?
d 1761	1803+	Aripuco	Monte Calvario (S. Felix).
1761	1770	Cavallapi *e*	?
1762	1803+	Upata *f*	S. Antonio.
1762	1764	Supama	?
1763	1803+	Caruachi (Caraguachi, Caravaxi).	S. Ramon.
1765	1803+	Huicsatono	S. Antonio.
1765?	1768	Uyacoa (Ullacova)	S. Felix.
1767	1803+	Cumamo	La Conversion de S. Pablo.

a The lists of 1788, 1796, and 1816 say 1734; that of 1813 says 1737.

b According to the Spanish accounts, five missions—Cunuri, Tupuquen, Miamo, Curumo, and Mutanambo—were raided by the Caribs in 1750 (all but Miamo being destroyed). But in the Dutch correspondence of Essequibo we learn, in March, 1751, of three raided in January of that year, and in August, 1752, of two "lately" destroyed.

c The list of 1799 says 1751.

d The list of 1799 says 1760.

e The spelling "Cavallaju," in some of the documents printed, is but a misreading of Cavallapi.

f Upata and Barceloneta were reckoned "towns," not missions, being peopled by whites instead of Indians.

Capuchin missions of Guayana—Continued.

Date of foundation.	Date of abandonment.	Indian name of site.	Invocation (saint's name).
1768	1803+	Maruanta *a*	?
1769	1803+	Puedpa	Los Dolores.
1770	1803+	Panapana *a*	?
1770	1803+	Las Bocas *b*	S. Pedro.
1770	1803+	Barceloneta *c* (Paragua)	S. Isidoro.
1771	1803+	Guri	S. Buenaventura.
1779	1803+	Pavarapana (Yavaragana).	Sta. Clara.
1779	1803+	Arabatayma (Arahuasaima).	S. Serafin.
1782	1803+	Cura	Sta. Rosa de Lima.
1783	1803+	Curucay	Sta. Magdalena.
1785	1802?	Aicaba	Angel Custodio.
1788	1803+	Tumeremo	Nra. Señora de Belem.

a Maruanta and Panapana, though Indian villages, were planted by the Spanish governor, and never appear on the lists of missions.

b Las Bocas, "the mouths" (i. e., the confluence of the Paragua and the Caroni), is, of course, a Spanish name, not Indian—the one exception to the rule. Barceloneta, not being strictly a mission, can hardly be counted an exception.

c Upata and Barceloneta were reckoned "towns," not missions, being peopled by whites instead of Indians.

NOTE.—For the sources whence this list of missions is compiled, see pp. 199–201 above. Only the most puzzling differences of name are here given: variations in spelling are manifold.

NOTES

ON THE

GEOGRAPHY OF THE ORINOCO-ESSEQUIBO REGION, SOUTH AMERICA.

BY

MARCUS BAKER.

NOTES ON THE GEOGRAPHY OF THE ORINOCO-ESSEQUIBO REGION, SOUTH AMERICA.

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INTRODUCTION.

It is important to understand at the outset that the following pages are, as the title indicates, mere notes, not written for publication in their present form. Their collection was begun

in November, 1896, and the work carried on as rapidly as the press of other duties permitted. They were gathered with a view to the preparation of an exhaustive compilation of the geographical facts recorded by travelers, geographers, geologists, surveyors, and others who have contributed to our knowledge of the Orinoco-Essequibo region. The Commission having decided to investigate no further, but forthwith close up and print for future use such material as it had already gathered, these notes were sent to press in their incomplete and crude state. Such revision as was possible in putting them hurriedly through the press has been made, but no general shaping or even revision of them for publication was possible.

In gathering these notes the aim was to bring together from widely scattered sources the scraps of geographic information, in various publications, and arrange them in an orderly manner, so that one might at once find in this text substantially all that is known about the various geographic features within the limits of the present inquiry. The notes were completed, or rather a first draft of them had been completed, for the Barima coast region, including the Pomeroon-Morooca district and the rivers draining through it, the Imataca mountains, the Cuyuni basin, and the Mazaruni basin to the great bend at Peaimah fall, when further compilation was suspended. For completing them, there remain to be described; the lower Orinoco region; the Essequibo basin (within the limits of the present inquiry); the great table land about Roraima, and the upper Mazaruni basin.

As far as practicable, quotations are made, to the end that the facts stated may appear as their authors gave them. Thus contradictions stand unreconciled in some cases. Citations of authorities appear in the footnotes.

A further aim in these notes was to record all the geographic names formerly, or now, used in the region, and to record the various designations which have been applied to the same feature. By this means, together with a full index of names and the citations in the footnotes, it would be possible to have easily accessible and in form for ready reference a practically complete index to the original sources of our geographic information concerning this region.

The meaning of the abbreviations used, in citing works consulted, is, in general, obvious and requires no explanation. The phrase *Great colonial map* is used to designate the large map of British Guiana, published in London, by Stanford, with the date 1875, and bearing the name of Sir Robert H. Schomburgk. It has been colloquially referred to as the *Stanford map*, the *Schomburgk map*, and the *Great map of the colony.* Its full title may be found in the accompanying list of maps, entered under Schomburgk. In writing these notes, use was made, for the most part, of the *second edition.*

Frequent reference is made, in the footnotes, to certain Parliamentary Papers, published in 1896, relative to the boundary question. These are entitled Documents and correspondence relating to the question of boundary between British Guiana and Venezuela, presented to both Houses of Parliament by command of Her Majesty in 1896. Of these there are five,

numbered 1 to 5, and a separate appendix to No. 1. For brevity these will be cited as Blue Book, Venezuela (1896).

The Journal of the Royal Agricultural and Commercial Society of British Guiana, published in Georgetown, British Guiana, is called *Timehri* (pronounced Tĕ-mĕ′r-ry), and will be cited under that name with date and page.

That a work done under the circumstances described, should emerge from the press free from errors or grievous faults is incredible. It is hoped that due allowance will be made for them, and that those which unavoidably appear will not be such as to render the whole worthless.

For satisfactorily following these notes a good map is essential. It is hardly practicable to intelligently follow or understand them without constant reference to the map. It was hoped to prepare a series of them to accompany this text, but the time available was too short for the purpose. In their absence the so-called Great colonial map will be found the most useful single map to use. A portion of it is reproduced in the accompanying atlas, map No. 49, but on a scale too small to make it satisfactory for this purpose. The original should be used

THE ORINOCO-ESSEQUIBO REGION.

By the phrase Orinoco-Essequibo region, as here used, is meant a district on the northeastern coast of South America between the Orinoco and Essequibo rivers, and extending somewhat more than 200 miles into the interior. With trifling exceptions along a small part of its coast the region is wholly

unsurveyed and but partially explored. Thus even the best maps of it rest little on measures and much on sketches. To Sir Robert H. Schomburgk more than to any other one man are we indebted for our present knowledge of its geography, and the large map of it, which may be called *The Great colonial map*, published in London, with the date 1875, based chiefly on Schomburgk's reconnoissances and explorations 1835–1844, remains the best we have to this day. And although the best, yet there are spots scattered here and there over the map standing for tracts that, so far as published results or accounts are concerned, have never been seen by the white man.

More specifically, the tract under examination is bounded on the east by the Essequibo, on the north by the Atlantic ocean and the Orinoco river, on the west by the Caroni river, and on the south by a mountainous district forming the watershed which separates the streams, flowing northward to the Atlantic, from those flowing southward to the Amazon. It is included between the fourth and tenth parallels of north latitude and the fifty-eighth and sixty-fourth meridians of west longitude from Greenwich. It may be broadly characterized as a bench country, buried for the most part beneath a tropical forest covering of marvelous density and beauty. Lying near the heart of the torrid zone, with the sun passing day after day, forever, through or near the zenith, and through two rainy seasons of each year, furnished for weeks together with downpours of warm rain that suggest a deluge, we have the conditions of nature's own hothouse. From these two conditions of excessive heat and excessive moisture comes the forest

covering, which in density, variety, and beauty, travelers agree in describing by the word indescribable. Beyond the forest tracts there are, in the interior, unforested districts called savannas, which, according to character of soil and altitude, are either swampy, hard and grass covered, or partially desert. The culminating point of the region is Mount Roraima, about 220 miles southwesterly from Georgetown on the coast, in

Lat. 4° 08′ N.,
Long. 60° 55′ W. Gr.

This mountain is a flat-topped mass of sandstone, whose almost inaccessible flat top is 8,600 feet above sea level. Its walls are almost everywhere cliffs more than half a mile high. From this commanding rock fortress of nature's own building the country gently slopes away and then drops down in benches or cliffs in all directions, so far as we know.

Before proceeding to set forth any details it may be of interest to note why it is that this country, which more than three centuries ago received the name Guiana and was then reported and believed to be the richest country in the world, abounding in gold and pearls; it may be interesting to note, I repeat, why it is that such a country should have remained unexplored and almost unknown down to a time within the memory of men still living. The dense forests offer to the white traveler a practically impenetrable barrier. They are traversed here and there by savage animals and sometimes by savage men; but the enormous difficulty experienced in penetrating or traversing them, for more than two centuries kept the white man out. The only access to

the interior was and is by the rivers. But the region is a bench country, rising, as one penetrates it, by a series of steps or benches. Thus it happens that, ascending the rivers other than the Orinoco, the border land of alluvium on the coast is hardly passed before one meets a cataract, or rapid, or series of rapids blocking the way. Patiently carrying or dragging his wood-skin canoe through dense woods around this obstacle, the traveler may paddle a short distance against a strong current only to find another and then another in wearisome succession. To penetrate the interior through the water-soaked and swampy forest jungle is well nigh impossible. To penetrate it by the streams is only possible in small boats, and then with difficulty and danger. These are the conditions and these the reasons why the world was so long in gaining its little store of knowledge about the interior of Raleigh's wonder land, Guiana.

THE IMATACA RANGE.[1]

The height of land which separates the streams flowing northward to the Orinoco from those flowing southward to the Cuyuni constitutes the Imataca range. Sometimes it is called Imataca *mountains*, sometimes Imataca *hills*, sometimes the Imataca *range*. The name appears to have been applied by the Spaniards as early as 1775, and perhaps earlier. As above defined, the term Imataca would include the Piacoa mountains also. This name Piacoa, introduced later, applies

[1] *Serrania de Ymataca* of Cruz Cano, 1775, and of Father Caulin's map, 1778; *Serrania de Imataca* of Codazzi, 1840.

to either the western part of the Imataca range as here used, or to a distinct mass. Our present knowledge is too scanty to determine the true relations. The eastern extension of the Imatacas is called *Blue* mountains on an English map of 1832,[1] a name derived from the Dutch, who, in the last century, were in the habit of calling these insignificant hills the "*Blauw Bergh.*"[2] The Imataca range, included between the seventh and eighth parallels of north latitude and the fifty-ninth and sixty-third meridians of west longitude, is some 250 miles long, trending generally WNW. to ESE. The range is a product of erosion. Such meager facts as we have indicate that the Imatacas are remnants of a table land composed of nearly level beds of rock of unequal hardness. The beds dip or incline very gently toward the sea. The highest part of the range—if the term range may be properly applied to a dissected table land—appears to be at its junction with the Piacoa mountains near the sixty-second meridian, where a height of 2,340 feet is reported. This is about 125 miles WSW. from Barima point. The eastern part of the range—i. e., the part lying eastward from longitude 60½ degrees—Schomburgk calls a "ridge of hillocks,"[3] which, rising gradually from sea level in the Pomeroon region, attain heights of 500 to 600 feet Some 20 miles to the westward of Acarabisi creek, according to Schomburgk, they become "heights which really deserve the name of mountains."

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[1] Jour. Royal Geogr. Soc., Vol. 2, map 3.

[2] Also written *Blauwen Bergh.* See Blue Book, Venezuela (1896), No. 1, Appendix III, map 5; also *Blaauwenberg;* Blue Book, Venez. (1896), No. 3, p. 99.

[3] Blue Book, Venezuela (1896), No. 5, p. 17 and map.

They are usually shown on maps as a fairly well defined range, and may so appear to travelers along the Cuyuni. Mr. Everard Im Thurn, in a paper read to the Royal Geographical Society in July, 1892, concerning British Guiana, speaks of the *Pacaraima* or *Parima* range, in the southern part of the colony and of the *Kanaku* mountains still farther south. As to the rest, he says they do not deserve the name of mountains, being "mere hills exaggerated by the draftsman into mountains." The geologists Brown and Sawkins and Sir Richard Schomburgk agree in describing the eastern third of them as the degraded remnant of a plateau, dissected into narrow, low ridges, between which run small streams through swampy ground. These minor ridges and intervening valleys are approximately parallel to the coast line. For the most part the range is overgrown with a veritable forest jungle of "noble forest trees," most of them strange to the inhabitants of the temperate zones. At or near their western extension are savannas, or unforested, gently undulating, grassy tracts. Just how far these savannas extend toward or into the western end of the Imataca range is imperfectly known. Map No. 2 of the accompanying atlas shows this limit as well as it could be made out. About all that we are warranted in saying is that in or near their western part are extensive savannas. As for the rest they are forested with a covering of such density and tropical luxuriance that they are impassable, except along paths cut through them; paths, which can only be kept open by ever renewed cutting.

THE BARIMA COAST REGION.[1]

By this name, as here used, is meant the delta swamp region bordering the coast between the Pomeroon-Morooca estuary and the Great or Ship's mouth of the Orinoco.

As to its general character there is good agreement, but the latest and presumably best charts differ essentially as to one or two important details. These differences are irreconcilable save by observations in the locality. To make this clear the base map, prepared for the Commission, shows side by side two maps of the region, one a copy of the latest accessible British Admiralty chart, the other its own map, based in this part upon a chart by J. S. Hobbs, lately published in London by C. Wilson, a chart maker and seller. The most noteworthy difference relates to the Mora passage.

Cape Nassau, the eastern point of entrance to the Pomeroon estuary, is in

Lat. 7° 36′[2] N.,
Long. 58° 44′ W. Gr.

From this point the coast trends northwesterly, curving gradually more to the westward to Barima point, a distance of 140 miles. The sea in front is shallow and its bottom muddy. For a distance of 35 miles, and probably much more, the three-fathom curve is 10 or more miles from shore. The whole coast line is so low and devoid of character that particular localities

[1]The *Warow Land* of Hilhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 324. The *North-western District* of the English in recent years.

[2]Lat. 7° 39′ and long. 58° 47′ W., according to Brit. Adm. chart No. 1801.

can be identified only with great difficulty. A stranger could not make them out, says the Coast Pilot, even if "the draft of his vessel allowed him to approach the coast sufficiently near to observe them."[1] And as to the Great or Ship's mouth of the Orinoco, the Boca Grande, the Pilot says:[2] "The land about the entrance to the river at Boca Grande is very difficult to recognize, and unless the weather is very clear nothing can be seen."

Barima point, the northeastern point of entrance to Barima river, in the great mouth of the Orinoco, is in

Lat. 8° 38′ N.,
Long. 60° 22′ W. Gr.[3]

A short distance south from it is a small, sandy bay. Here it was that Schomburgk, on May 12, 1841, began his survey of the Barima mouth and vicinity, a survey which he completed in just one week.[4] So swampy is the region and so thickly is the swamp forested with the "semi-aquatic, stilt-raised mangrove, and the somewhat similar courida," that no place could be found for a base line. Accordingly, the distances adopted as the bases of the work were had by noting, by chronometer, the time intervals between the flashes and reports of guns fired from three stations. The weather during this time was unfavorable;[5] still, observations were had from which the

[1] U. S. Hyd. Off. Pub. No. 88, p. 13.
[2] U. S. Hyd. Off. Pub. No. 64, p. 318.
[3] Brit. Adm. chart No. 1801.
[4] Blue Book, Venezuela (1896), No. 5, p. 2.
[5] Blue Book, Venezuela (1896), No. 5, p. 3.

geographical position of the boundary post at Barima point was found, by Schomburgk, to be[1]

Lat. 8° 36′ 09″ N.,
Long. 60° 40′ 36″ W. Gr.

From this post, planted May 13, 1841, the opposite or southern point of entrance to the Barima bore S. 25° 30′ W., and the mouth of the Amacura, S. 43° 30′ W. The distance from Barima point to the mouth of the Amacura is, according to Schomburgk's map and the late official charts of Great Britain and the United States, about 5 miles. The United States Hydrographic Office Directory of the Caribbean sea[2] states this distance to be 10 miles, and this agrees with a late English chart by J. S. Hobbs. Im Thurn says it is 4 miles.[3]

On the same day as above mentioned, May 13, 1841, Schomburgk planted a post at the eastern point of entrance to the Amacura, of which the position, according to his observation,[4] is

Lat. 8° 33′ 3″ N.,
Long. 60° 40′ 36″ W Gr.

From this post the western point of entrance to the Amacura bore N. 48° W., and Barima point N. 43° 30′ E. It will be noted that there is an error in the longitudes here given; for the two posts—one at Barima point and the other at the Amacura mouth—are given as exactly on the same meridian, making the Amacura mouth exactly south of Barima point and 3

[1] Blue Book, Venezuela (1896), No. 5, p. 8.
[2] U. S. Hyd. Off. Pub. No. 61, p. 319.
[3] Proc. Royal Geogr. Soc. Vol. XIV, p. 679.
[4] Blue Book, Venezuela (1896), No. 5, p. 9.

miles from it, whereas Schomburgk says it is southwest from Barima point, and so shows it on his map. British Admiralty chart No. 1801 and United States Hydrographic chart No. 968 give as the position of the Amacura's mouth

Lat. 8° 35′ N.,
Long. 60° 26′ W. Gr.,

while the Hobbs chart gives, for the same point,

Lat. 8° 30′ N.,
Long. 60° 47′ W. Gr.

THE AMACURA[1] RIVER.

This is one of the delta rivers, and is some 80 or 90 miles long. Its head waters appear not to have been visited even by the natives. From its mouth, in the great mouth of the Orinoco, it takes a generally SE.½E. direction 40 miles to *Wause* mountain, a small hill on its western bank; then bending to the south, it has a southerly course 10 miles farther to the *Yarikita*[2] mountain, a hill 250 feet high; then, bending to the westward and rapidly diminishing in size, it trends W. by S.½S. to its source in the Imataca range an unknown distance, supposed to be some 30 or 40 miles. In all its lower course it flows through the delta swamp, receiving numerous tributaries, especially from its eastern bank. The native names of these streams were obtained by Schomburgk from Captain Jan,[3] a very "useful and intelligent" Arawaak chieftain.

Beginning with the eastern bank and ascending the

[1] So written by Raleigh in 1595. Variously spelled *Imakura, Amacura, Amacuro, Amakura, Ammocoura, Ammacoura, Amacourou, Amachara*, etc.

[2] Also written *Arikita*.

[3] Blue Book, Venezuela (1896), No. 5, pp. 4 and 6.

Amacura, the Arawaak names of the tributary streams are reported by Schomburgk to be:[1]

Anapari,
Thirabuli (also *Tshirabuli*),
Wassicuru,
Bonoima,
Azidaia,
Shimkuna,
Hanna Wohe,
Haiowa,
Crushiweyu,
Sepumaka,
Yackitiru,
Otucamabo,
Yarikita,
Murissicuru,
Tusa.

Similarly the names of the western tributaries of the Amacura beginning at the mouth and ascending are:

Coyoni (passage).
Waracaba,
Carapu,
Arucabara,[2]
Sura,
Awarra,
Yuricabara,
Maricabara,
Wau-uno,
Piroto,
Yarikita,[3]
Nunu or *Cunibari*,
Curiyopo.

There is a bar at the mouth of the Amacura. The tidal influence is felt for more than 50 miles up the river. In the *Yarikita* river, 50 miles from the Amacura mouth, a rise and fall of about two feet is reported by Schomburgk,[4] and it seems probable that this tidal influence is felt as far as the first

[1] Map in Blue Book, Venezuela (1896), No. 5.

[2] *Arucabaru* of Great colonial map.

[3] A river called *Yarikita* flows in from the eastern bank, another smaller one, of the same name, nearly opposite, from the western bank, and on the bank is the hill called *Mount Arikita*.

[4] Blue Book, Venezuela (1896), No. 5, p. 4.

cataract, Cuyurara, some 65 miles from the mouth. The stream rarely exceeds 300 yards in width, and is said to have a depth of not less than 18 feet for 50 miles; i. e., to Yarikita. Above this, says Schomburgk, it is only fit for navigation by the native canoes. Thus it is navigable for small steamers for about 50 miles. From Yarikita upward it rapidly dwindles to "a mere stream"; at 65 miles from its mouth it is crossed by a granite ledge, constituting the *Cuyurara* cataract. The total descent at this cataract is about 30 feet in rapids and three steps, of which the one farthest down stream is 12 feet. From these falls to its source the Amacura is said to be two days' journey by canoe.

Throughout its course it is hemmed in by dense tropical vegetation. In all its lower reaches the banks are at or below the high water of spring tides, and seem to be neither land nor water, but "e'en standing water between the two" Large patches of matted grass covered with the blue water lily and other aquatic plants are torn from the banks by freshets and drift up and down with the flowing and ebbing tide. The mangrove and palms of the delta swamp give place gradually to other great trees as one approaches firmer land upstream. From the sea to the cataract, 65 miles distant, but three hills appear, all of them low. The first is *Waase* mountain, height not given, 40 miles upstream; 10 miles farther, the *Manipari* hills, or ridge, about 500 feet high; and near by, *Yarikita*, 250 feet high.

Dixon's map of 1895[1] shows, near the mouth of the Amacura,

[1] Jour. Royal Geogr. Soc., April, 1895, p. 408.

on its right or eastern bank, *British Frontier Station*, and on the opposite bank, *Venezuelan Frontier Station*. In 1883 the magistrate of the Pomeroon received instructions to occasionally visit the outlying districts to the northwest, a region which, by ordinance 20 of 1890, was created out of Essequibo county, a Government agency called the *Northwestern District*. "In 1885 a shed was put up in Amakooroo as a rest house for the magistrate on these visits. In 1887 a somewhat similar rest house was put up at the mouth of the Barima." This was added to in 1888 and a small detachment of police stationed in it.[1] These were the first resident officials in the Northwestern District.

THE BARIMA[2] RIVER.

This river, whose length, disregarding minor bends, is about 200 miles, rises in a "steep gorge" of the Imataca mountains in

Lat. 7° 32′ N.,
Long. 61° 08′ W. Gr.

The elevation of the summit of the Imatacas near its source is 950 feet. The source was first visited by George G. Dixon on August 2, 1894, who reports that the river rises in the dense forest that extends in all directions as far as could be seen, and not in an open savanna, "as reported."[3] For the first 25 miles downstream to Rocky river it is a

[1] British Guiana Directory and Almanack. 16 , Georgetown, 1892, p. 31.

[2] *Burima* of Raleigh's map, 1595; *Peremo* of De Bry, 1599; *Paryma* of Blaeuw, 1635; *Barema* of Hillhouse, 1834; also spelled *Baryma*, *Parima*, *Balima*, etc.

[3] Jour. Royal Geogr. Soc., April, 1895, p. 344.

tortuous, torrential stream, blocked with fallen timber and interrupted by cataracts.

Of these the finest one, 2 or 3 miles above Rocky river and 12 feet high, is called by the natives *Baramba.*[1] *Rocky* river was so named by Schomburgk,[2] who visited it July 1, 1841, and he says that none of the Indians of the inhabitable part of the Barima below its falls had ever before ascended so far. Rocky river marks the limit of Schomburgk's ascent of the Barima. From Rocky river down to *Eclipse* falls[3] of Dixon is about 30 miles. The river through this stretch is flowing down the lower slopes of the low Imatacas, is obstructed by fallen trees, and has numerous small falls and rapids, produced by granite dikes. *Uropocari*, about 4 miles above Eclipse falls, is the largest of these rapids. In this stretch—Rocky river to Eclipse falls—Schomburgk shows six tributaries on the south bank, of which but one bears a name. That name is *Mehokawaina*,[4] and marks the limit of Schomburgk's ascent by canoe. From here to Rocky creek,[5] he says, "we pathed ourselves a way through entangled bushes and swamps, following the left bank of the Barima." On its northern bank, in this same stretch, the Barima receives five tributaries, according to Schomburgk; eight according to Dixon. Of these Dixon calls the largest one, which debouches some 12 or 15 miles above Eclipse falls, *Whanamo Paru.*

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[1] Jour. Royal Geogr. Soc., April, 1895, p. 343.

[2] Blue Book, Venezuela (1896), No. 5, p. 14.

[3] Variously called *Mekorerusa, Mekorerassa, Mecoro-russu, Meckorerussu*, etc.; *Mekorerussa* cataract of Great colonial map.

[4] Blue Book, Venezuela (1896), No. 5, p. 13 and map. It is *Whana* creek of Dixon.

[5] Usually Schomburgk writes Rocky *river*, but sometimes Rocky *creek*.

Schomburgk calls it *Wanama* river, and says it is so called by the Warraus from the bamboos growing at its mouth, of which their name is *wanama.*[1] It is "one of the largest tributaries of the upper Barima." Below this stream the river widens considerably. The other tributaries are *Duquari*, whose water is black, *Nakukai*, *Awaesparu*,[2] and *Yakiri.*

Eclipse falls, in

Lat. 7° 40′ N.,
Long. 60° 00′ W. Gr.,[3]

marks the limits of navigation in the Barima. Just below it the depth is three fathoms,[4] and it flows on to the sea in a course at first tortuous, then somewhat straighter, and with a strong current. The distance from Eclipse falls, the head of navigation, to the mouth is about 140 miles. This stretch naturally divides itself into two parts; the first from Eclipse falls to Mount Everard, 45 miles, being quite tortuous and navigable for small steamers only, the remaining distance from Mount Everard to the sea, 95 miles, being straighter and navigable for large steamers. Steamers from Georgetown ascend the river as far as Mount Everard.[5]

The stretch between Eclipse falls and Mount Everard is in its upper part so tortuous that scarce any reach is 500 yards

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[1] Blue Book, Venezuela (1896), No. 5, p. 13. Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 343.

[2] Erroneously *Awaeapsru* on the Great colonial map.

[3] According to the Great colonial map; 60° 07′ according to Dixon's map.

[4] Blue Book, Venezuela (1896), No. 5, p. 13.

[5] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 337.

long. In this part the river gradually emerges from hard land into the delta swamp, flowing through the degraded remnants of the table land or bench out of which the Imatacas have been carved.

From Eclipse falls down to the itabo *Amissi*,[1] some 35 or more miles, the Barima was, prior to 1892, so obstructed by sunken timber as to be dangerous navigation even for small boats. "Now (1894), thanks to the energy of the Government, matters are greatly improved, and its course has been sufficiently cleared to admit of the passage of steam launches to the foot of the first falls."[2]

At *Maniakura*[3] creek, about 5 miles below Eclipse falls, spurs of the Imataca 400 feet above sea level, and "with summits rarely exceeding a few feet in width," come down almost to the water's edge.[4] Farther down the land gradually sinks to the swamp delta, with low, scattered knobs here and there, hard remnants of the old worn-out table land, the whole buried in a dense forest covering.

Numerous tributaries from both banks join the river between Eclipse falls and Mount Everard. The Great colonial map shows 16 named streams flowing in from the north bank and 10 from the south bank.

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[1] *Anabisi* and *Anabissi* creek of Dixon and *Amisi* or *Anabisi* of Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 677.

[2] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 337.

[3] So called by Dixon.

[4] Dixon, p. 338.

Those on the north bank, going downstream, are:

Houerembo,
Marattacaba,
Dodowina,
Cumaka,
Tshibai,
Cohina,
Yupotte,
Wapau,
Mariwaballi,[1]
Burroparu,[2]
Aruma,
Huena,[3]
Iwamahanna,
Aruta,
Yaramuku,[4]
Amissi[5] (itabo).

From the south bank it receives, similarly:

Acassi,[6]
Manicurra,[7]
Toroparu,
Cacoparita,[8]
Vakiparu,
Sabritin,[9]
Ararisi,
Manari,
Caruawa,[10]
Hocoba.

Most of these streams appear to be mere creeks rather than rivers. Their mouths are so concealed by the dense forest growth that they escape the notice of the untrained eye.

About 15 miles below Eclipse falls the width of the river was measured by Schomburgk and found to be 51 yards.

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[1] *Mariwaballi* of the Blue Book, Venezuela (1896), No. 5, p. 13.
[2] *Buruparu* of same, p. 13.
[3] *Herena* of same, p. 12, near which was the "*last place of the white man.*"
[4] *Yaramuku* of same, p. 11, and *Yaruuuku* of the map.
[5] Erroneously *Rabbo* Amissi on the Great colonial map.
[6] *Akassi* on map in Blue Book, Venezuela, (1896), No. 5.
[7] *Anakoita* of same, but *Maniakura* creek of Dixon.
[8] *Cakoparurita* of same.
[9] Erroneously for *Yabritin*. See same, p. 13, and map.
[10] *Caruawu* of same, but *Caruwaru* or *Caruawa* of text, p. 12.

Near the mouth of the *Aruta*, some 35 miles below Eclipse falls, the river is 40 yards wide, 3 to 4 fathoms deep, and flows with a swift current.[1] Five miles farther downstream we reach the first *itabo* (slough or bayou) called *Amissi*,[2] a water body larger than the Barima at their junction and by the stranger liable to be mistaken for the main river. This is the beginning on the Barima of the interlacing system of water courses which characterizes the true delta. In this vicinity the tide ends, the exact point varying with the stage of water in the river. From this point to the sea the stream is shown as less tortuous and its banks are for the most part so low as to be overflowed in every rainy season and in some parts throughout the dry seasons also.

Twelve miles above Mount Everard is the British Government station *Koriabbo*,[3] built on a slight elevation on the southern bank. Back of this to the southward small hills and ridges rise out of the swamp.

Mount Everard is an isolated hill on the eastern bank and, as before stated, marks the head of navigation for the large steamers from Georgetown. From its cleared summit an unobstructed view is had to northwestward revealing a view of a level country "as far as the eye can reach," broken only occasionally by insignificant hillocks and everywhere clothed with thick forests.

From here to the sea, 95 miles, the Barima is a tidal river in

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[1] Schomburgk: Blue Book, Venezuela (1896), No. 5, p. 11.

[2] *Anabisi* of Dixon's map.

[3] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 337, but *Koriabo* of his map.

a delta swamp. On its left or western bank it receives the waters of eleven named tributaries, on its eastern thirteen. Chief among these are the *Kaituma* and *Aruka*.

Those on the western bank are:

Warina,
Waiwaramuko,[1]
Honobe,[2]
Kaituma,[3]
Huckuhann,
Aruka,[4]
Pakari,
Mururuina,[5]
Uwerrima,[6]
Cuipaina,
Marimari.

Those on the eastern bank are:

Curiye,[7]
Maruiwa or *Whomana*,
Ishitihanua,
Hoyowuini sanica,[8]
Schurini or *Mucu Mucu*,[9]
Eckanabua,
Hanaita,
Mahaina,
Wassicuru,
Mora (passage),
Ascida yaya (inlet),[10]
Waine,[11]
Puruwe,[12]
Muipaina.

Schomburgk speaks of "some hillocks" on both banks of the Barima in the vicinity of Mount Everard, on one of which

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[1] *Waiworamuco* of Great colonial map and *Waiwaramuco* of map in Richard Schomburgk's Reisen, Vol. I, p. 470.

[2] *Honobo* of Great colonial map and of Richard Schomburgk's map.

[3] *Kaitooma* of Hilhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 330, and map.

[4] *Arooka* of Hilhouse.

[5] *Mururiana* of Richard Schomburgk's map.

[6] *Awerrima* of Great colonial map.

[7] *Cariya* of Brown and Sawkins' map.

[8] *Hoyowanini* and *Hoyowuini sanica* of Great colonial map; *Hoyowuini* of Richard Schomburgk's map.

[9] *Schurini* of Richard Schomburgk's map.

[10] *Ascida Vaya* of Great colonial map.

[11] *Waini* of Richard Schomburgk's map.

[12] *Puruwé* of Great colonial map.

a Warrau chief had a fine house.[1] This house or place Schomburgk calls *Warina*. Its geographic position was, by his observations, found to be

Lat. 7° 50′ 15″ N.,
Long. 59° 43′ 30″ W. Gr.,

and elevation "about 70 feet above the Barima." On Dixon's map the longitude is about 10 miles less, being 59° 33′ W.; on the Great colonial map about 20 miles less, being 59° 23′ W. Knowledge of the longitudes in this delta region is especially defective, as discrepancies among the latest and best maps abundantly show. Just above Mount Everard is the "rivulet *Curiye*" of Schomburgk, by which small boats may reach the Waini, while just below is the small river *Maruiwa*, or *Whomana*,[2] by which larger boats may do the same. Such water courses characterize the delta swamp in these parts, and the presence here of these two, the first met with on the right bank in descending, indicates the general limit of the delta swamp in this region. The journey from Barima to Waini through the Maruiwa and connecting bayous usually takes the natives two days.[3] These bayous or sloughs are locally known as *itabos*, a word variously spelled etabbo, itabbo, etc., and derived from *ita* or *eta*, a native word for the eta palm (*Mauritia*), and *abbo*, a water course.[4] So thick are these palms hereabouts, says Hilhouse, "that scarcely another tree is to be

[1] Blue Book, Venezuela (1896), No. 5, p. 11.

[2] Thus on Schomburgk's map: Blue Book, Venezuela (1896), No. 5, and in Jour. Royal Geogr. Soc., Vol. XII, p. 178, but *Maruiwa* or *Hobanna* in text of Blue Book, Venezuela, No. 5, p. 11.

[3] Blue Book, Venezuela (1896), No. 5, p. 11.

[4] Hilhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 325.

recognised." The distance between the Waini and Barima by this itabo and connecting streams is about 20 miles. Dixon calls the whole passage *Itabbo Moreba.*[1] Hillhouse, who passed through it before 1834, calls the eastern part *Iteritè* creek, a tributary of the Waini, the western part *Timity* creek, a tributary of the Barima, while the connecting itabo is unnamed.

Im Thurn, who passed through this itabo *Moreba* in 1883, says:[2]

Anything more maze-like than this itabbo between the Waini and Barima Rivers it is impossible to imagine. The route lies along first one, then another—it is almost impossible to guess which—of an uncounted number of tiny tree-smothered, sedge-choked water channels, which form an intricate network over the wide stretch of alluvial mud, never dried or lighted by the rays of the sun, which lies between the two rivers.

And again:

For two days we wandered, apparently lost, through this dismal swamp, slinging our hammocks at night over the water, between the trunks of the remarkable trulie palm (*Manicaria saccifera*), which there stretches upward some of the most gigantic leaves in the world. At last, more by luck, as it seemed, than by our own skill, our small canoe was forced out into the light and free air of the open Barima River, through widespreading towering clumps of sedges, densely matted together with stems of bignonia, heavy with purple and yellow flowers of all shades.

In Schomburgk's official map[3] five names are used to designate different parts of this 20-mile, stagnant, overgrown,

[1] *Moreibo* of Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 675.

[2] Proc. Royal Geogr. Soc., Vol. XIV, p. 677.

[3] By this phrase—Schomburgk's *official map*—is meant the map in Blue Book, Venezuela (1896), No. 5.

swamp ditch. Beginning at the west, these are *Maruiwa*, or *Whomana*, *Waburina*, *Sabaina*, *Iteriti*, and *Moreto*. On the map showing his route of travel[1] he gives but two, *Maruiwa* or *Whomana*, and *Wabarini*, to which are joined two tributaries, *Sabina* and *Heriti*.[2]

This *Iteriti*, pronounced "etereēty," according to Hilhouse,[3] is the native (Warow?) name of a long reed with a tuft of leaves at the top. Its bark is split and woven into baskets. Somewhere on this creek Hilhouse found a Warow village "built in and with eta trees," where he lodged. Of this he has published an interesting description.[4] Fish abound here; also fruits, upon which numerous birds and monkeys feed. The various geographic names applied by the natives in these parts always have reference to some peculiar natural production there abundant.[5] From the itabo Moreba to the sea the Barima has "the appearance of a tidal river, being margined by Mangrove and Curida bushes, over which Manicole and Truli palms raise their heads."[6] Its banks are wholly delta swamps.

Some 25 or 30 miles below the itabo Moreba, Schomburgk shows *Eckanabua* river as 8 miles long and connecting the Waini and Barima. It would seem to be another itabo, laid down from native reports. As to this supposed itabo, Im Thurn says it "is marked on Schomburgk's sketch-map, and

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[1] Jour. Royal Geogr. Soc., Vol. XII, p. 284.
[2] An obvious misrendering of *Iteriti*.
[3] Jour. Royal Geogr. Soc., Vol. IV, p. 326.
[4] Jour. Royal Geogr. Soc., Vol. IV, pp. 326 et seq.
[5] Jour. Royal Geogr. Soc., Vol. IV, p. 321.
[6] Blue Book, Venezuela (1896), No. 5, p. 11.

has thence been adopted into more recent maps. But of this supposed itabbo I can find no trace, and I feel pretty confident it does not exist."[1]

About 25 miles down from Mount Everard, the head of navigation by the Georgetown steamers, the *Kaituma* falls in on the left or southern bank. It is shown as a mere sketch even on the latest maps. Hillhouse calls it *Kaitooma* creek.[2] On Schomburgk's official map it is 75 miles long, and his delineation is copied without change on the later maps. According to Im Thurn,[3] its headwaters are connected with the Aruka by a waterway and by a path. Four miles below the Kaituma, another tributary, the *Aruka*, falls in on the left bank. Schomburgk, in May, 1841, ascended this stream about 25 miles to a Warrau settlement "which consisted of eighteen individuals."[4] He reports that the stream continues some 15 miles farther, and that another settlement of 15 individuals exists in this part, being the uppermost one on the river. Im Thurn[5] reports that a few years prior to 1883 there were three settlers on this river, a negro, a Chinaman, and a Portuguese, and that a considerable number of Arawak natives were here in their primitive state, hardly touched by civilization. They retained their primitive customs, and, unlike others of their own tribe, could not speak English.

Approaching the limit of his ascent of this stream, Schomburgk reports it as lessening materially in size, being scarcely

[1] Proc. Royal Geogr. Soc., Vol. XIV, p. 680.
[2] Jour. Royal Geogr. Soc., Vol. IV, p. 330.
[3] Proc. Royal Geogr. Soc., Vol. XIV, p. 680.
[4] Blue Book, Venezuela (1896), No. 5, p. 4.
[5] Proc. Royal Geogr. Soc., Vol. XIV, p. 677.

more than 30 yards wide, and with water "of a jet black, and so clear that it proved difficult to discern where the reflected image * * * separated from the real object."[1] But at its mouth it has yellowish muddy water.[2] The banks are muddy and studded with manicole and truli palms. A small stream called by Schomburgk *Mabunua* river is the only tributary shown on the eastern bank. About 15 miles from its mouth the Aruka receives on its western bank the *Aruau*, a small, tortuous stream some 10 miles long, heading near the *Yarikita*, from which it is separated by a *portage* a little more than a mile long, and which extends in a southwesterly direction over a divide 40 or 50 feet high. The portage is over this low ridge, which, running northwest and southeast, here separates the waters of the Amacura and Barima. Schomburgk, who crossed here in May, 1841, was two days in making this portage with his boat and material. He reports no rock *in situ* at this place, but only a few blocks of granite, "which no doubt had been transported by water,"[3] and suggests a canal through the ocherous clay forming the ridge. Three small tributaries of the small *Aruau* appear on Schomburgk's official map, with the following names: *Muracaraicuru*,[4] *Macarauari*,[5] and *Wanakai*. From the Aruau to its mouth the Aruka has a somewhat winding course, trending in general northward. From its western bank it receives several minor streams, of which Schomburgk applies names to two,

[1] Blue Book, Venezuela (1896), No. 5, p. 4.
[2] Blue Book, Venezuela (1896), No. 5, p. 2.
[3] Blue Book, Venezuela (1896), No. 5, p. 4.
[4] *Muracaraicura* of Great colonial map.
[5] *Macarawari* of Great colonial map.

Caruaupa[1] and *Woupu*. A few low hills appear on its northern bank a few miles from the mouth, on one of which was the native village *Cumaka*, where Schomburgk left the sick members of his party when he crossed by the Yarikita portage to the Amacura.

From the Aruka's mouth to Mora passage is 5 miles, and on the right bank of the Barima here Hillhouse reports a "hill about 150 feet high, visible from the river."[2] Codazzi's map calls it (or them) *Los Tres Mogotes* (the three hillocks). It is absent from most, recent maps, but on the inset of the Hobbs chart of the "Coast of Guayana" three distinct hillocks are shown just south of Mora passage. In the sailing directions accompanying this chart these hillocks are referred to as landmarks for making out the entrance to Guayana bay—i. e., the entrance to Waini river.

The directions are quoted from Capt. James Ambrose of the brig *Hunter*. He says:[3]

It will therefore be better and safer to make the land to the southeastward (of the ship's mouth of the Orinoco) somewhere about Guayana Bay, which forms a deep bight, and the appearance of the coast thereabouts is remarkable, and can be more depended upon than any other part for there are three singular hills or hummocks, standing inland in a southwesterly direction.

The Caribbean Sea Directory[4] says:

The entrance of the Guayma (Waini) may be recognized by three remarkable trees on Brand point, about two miles from the mouth, on the western shore, described by most navigators as three hills.

[1] *Caruapu* of the Great colonial map.

[2] Jour. Royal Geogr. Soc., Vol. IV, p. 330.

[3] Sailing Directions for the Coast of Guayana. 12°. London: Norie & Wilson, 1880, p. 31.

[4] U. S. Hyd. Off. Pub. No. 64, 1890, p. 322.

MORA PASSAGE.

This "extraordinary" waterway connecting the lower Barima with the Waini merits a special examination. It is so differently shown on the latest charts that a survey is needed to reconcile these differences.

It first appears on Cruz Cano's map of 1775 as *Caño de Muru*, and three years later on *Surville's* map, in Caulin's Historia, as *Caño de Maria*. In both these cases it joins the Waini some 40 or 50 miles above the mouth. It is *Mora* creek of Hilhouse, 1834, and of Arrowsmith, 1842; and *Mora-wan* of the Warrau Indians, according to Schomburgk. It is *Caño Muraguana* of Codazzi, 1840, and *Morajuana* of late Venezuelan maps. Im Thurn calls it *Morawhanna*,[1] and an English government station on its banks bears the same name. It will be remembered that Im Thurn was in 1882 made superintendent of the *Northwestern District*, "a tract," he says, "of some 9400 square miles of British territory, before almost unknown, and quite unutilised."[2]

Of this passage, through which he went in 1883, he says:

It is an extraordinary passage, about 100 yards wide, which leaves the Barima at a point 49 miles from the sea, and enters the Waini at the actual sea-mouth after a short course of only 8 miles. As both the Waini and the Barima are large rivers and of very strong current, the Morawhanna is a battlefield between the conflicting tide-systems of the Barima and the Waini. At certain states of the tide this struggle is most marked; but the victory is finally gained by the tide from the Waini.[3]

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[1] So also does Dixon in his text, but on his map it is *Morawhana*.
[2] Proc. Royal Geogr. Soc., Vol. XIV p. 665.
[3] Proc. Royal Geogr. Soc., Vol. XIV, p. 680.

And again he says:[1]

We passed * * * the mouth of the Morawhanna, a broad water channel which, starting from the Barima on its right bank, and at a distance of 49 miles from the sea, runs, after a course of only 8 miles, into the Waini, actually at the sea mouth of the latter river.

And yet again:[2]

The Waini system and the Barima are wide and deep rivers, affording water-passage for vessels up to 15 or 16 feet draft, for 80 or more miles inland from the sea; the Morawhanna, navigable for equally large vessels, forms a link between these two main rivers.

The English and American charts, with their followers, are apparently copied, with either none, or but slight, modification, from Schomburgk's official map, where Mora passage is shown as a narrow stream 12 miles long, meeting the Waini 12 miles above *Playa* or *Duck* point, the northwestern point of entrance to the Waini. Schomburgk began his boundary survey at the mouth of the Waini on April 21, 1841, and completed his work there in ten days. He then went through the Mora passage, which he describes thus:[3]

We ascended the Waini to the remarkable passage which connects that river with the Barima, and, although not navigable for sailing vessels, affords a ready communication in boats and canoes between the two rivers. This natural channel, which may be compared in some respects to the Cassiquiare, which connects the Upper Orinoco with the Rio Negro, is known in the colony under the name of Mora Creek. The Warrau Indians, who inhabit these rivers, call it Mora-wan. Where we entered it from the Waini, I estimated its width one hundred and ten feet, and near the entrance we found a depth of sixteen feet.

[1] Proc. Royal Geogr. Soc., Vol. XIV, p. 678.
[2] Proc. Royal Geogr. Soc., Vol. XIV, p. 668.
[3] Blue Book, Venezuela (1896), No. 5, p. 1.

During the flow of tide, the current sets from the Waini to the Barima and with such a velocity that the steersman has to use precautions not to be swept against trees which in one or two places obstruct the bed of the river, and which become the more dangerous since the passage is so very winding: for this reason, though the depth would permit vessels of six to eight feet draught to navigate the Mora, its numerous windings and rapid tide render it only fit for boats and canoes. The ebb tide sweeps with equal velocity through this natural channel, from the Barima to the Waini.

As to the tides, the following statement has come recently from one of the local pilots:

The Barima river from Barima Sands Police Station to Morawhanna has a regular tide, six hours ebb and six hours flood, just the same as the river above Morawhanna. The Mora passage is simply an itabo with a regular flood and ebb through it, but the tide in the Mora is governed by the Waini river tide, making the rather uncommon thing of the tide ebbing at Morawhanna and flowing through the Mora passage, and vice versa. The time of high water at Waini mouth is about thirty to forty minutes after Georgetown, and the time of high water at Barima Sands, one hour and forty-five minutes to two hours after Georgetown; in fact, the Orinoco time can be taken for the Barima mouth. The time of high water at Morawhanna will be about four to five hours after Georgetown. It takes the tide about two to two and one-half hours to get up from Barima mouth to Morawhanna. All these times are very approximate. The tide is perceptible up to *Kinabo*[1] in the dry season, 125 miles from the Barima mouth.

Hillhouse, who passed through this Mora passage in 1825, briefly mentions his observations upon it. He says:[2]

The Mora passage on the eastern bank (of the Barima) connects it (the Barima) with the lowest lagune of the Wayena.

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[1] Should not this be *Koriabbo*?

[2] Jour. Royal Geogr. Soc., Vol. IV., pp. 330–331.

Further on he says:

On returning, I proceeded through the Mora creek into the lagunes of the Wayena; these are three enlargements of the river into lakes, the lowest the largest, with intermediate contractions, the western shores being shallow mud flats.

Fresh water is not to be had here except by catching rain water. Schomburgk, when surveying here, was obliged to send through the Mora passage and up the Barima to the Aruka for drinking water, the trip requiring a day and a half.[1]

At the junction of Mora passage with the Barima is a British government station called *Morauchanna*, established in 1888.[2] As then established it consisted of a house for an inspector of police and barracks for the men under him. This place, visited by steamers from Georgetown, is regarded as the geographic and economic center of the Northwestern District. Dixon, who was here April 20, 1894, speaks of *Morauchanna*, "the seat of government of the Northwestern District," as "a well-arranged and healthy town, surrounded by cultivated lands, standing where only six years ago all was swamp and desolation." From here to the mouth of the Barima is 49 miles, according to Im Thurn.[3] Midway in this stretch Dixon's map shows a rest house on the western bank. At the mouth of the river is a sand bank, the only piece of dry or hard land in these many miles of alluvial swamp. On this bank the Schomburgk brothers in 1841 camped and made surveys. In recent years Im Thurn, superintendent of the Northwestern

[1]Blue Book, Venezuela (1896), No. 5, p. 1.

[2]British Guiana Directory and Almanack. 18 , Georgetown, 1892, p. 31.

[3]Proc. Royal Geogr. Soc., Vol. XIV, p. 678. The distance is 50 miles on the Hobbs chart; 51 on Dixon's map, and 52 on Im Thurn's map.

district, has erected a British Government station, called *Barima Sand.* "This sand-bank," says Im Thurn, "has evidently much decreased in size" since Schomburgk's time.[1] From Morawhanna to Barima Sand the Barima is a large river with deep water, the soundings ranging from 11 to 15 fathoms and then diminishing to 2½ fathoms at its junction with the Orinoco. This part of the river has been called the *Brazo de Barima.*[2]

BARIMA ISLAND.

The land on the right bank of the lower Barima is an island without a name; for convenience it will be here called *Barima.* It lies between the Atlantic ocean and Barima river and between Mora passage and the great mouth of the Orinoco. Its shape is roughly triangular on some maps and roughly rectangular on others. Its length is about 55 miles; average width 10 miles, and its area perhaps 500 square miles. It is everywhere bordered by a dense fringe of palm and mangrove trees and is below the level of spring tides. Of its interior little appears to be known. It is supposed to be a silted-up tract not yet hard enough to support a forest and thus to constitute a wet savanna.

About 12 or 13 miles northeastward or east-northeastward from Barima point is *Sabaneta*[3] point, to the northeast of which 4 or 5 miles is *Sabaneta bank*, of soft mud, with 1½ fathoms water. Sabaneta point is by seamen often mistaken for Barima point.

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[1] Proc. Royal Geogr. Soc., Vol. XIV, p. 678.

[2] Hobbs' chart; also *Caño Barima* of Arrowsmith, 1842.

[3] *Sabanetta* of Brown and Sawkins; *Sabanata* and *Sabanate* of Arrowsmith, 1840; *Sabinetta* of the sailing directions accompanying the Hobbs chart; *Barima* or *Sabaneta* of Arrowsmith, 1840; and *Cape Droge* of Roggeveen, 1675.

Some 12 to 15 miles eastward from Sabaneta most maps show *Mokomoko*,[1] or *Moco Moco*, as the name of a point, though no point appears. From Mokomoko point to *Playa*[2] point, the northwestern point of entrance to the Waini river, is about 25 miles, and near the coast in this stretch Hobbs' chart shows two small islands near shore called *Corocoro*[3] islands. Two miles from Playa point on the western bank of the Waini estuary is *Brand* point of Schomburgk, 1846. The location of this point is very doubtful. United States Hydrographic Office Publication No. 88, second edition, 1894, page 12, says:

> The entrance of this (Waini or Guayma) river faces the NW. and is about 2 miles wide, with a depth on the bar of only 6 feet at low water neap tides, increasing just within the mouth to 13 feet. * * * (It) may be recognized by three remarkable trees (if they still exist) on Brand point, about 2 miles from the mouth on the western shore, described by most navigators as three hills.

WAINI RIVER.[4]

This river, with its main tributary, the Barama, closely resembles in character and in its form, on the map, the Amacura and Barima. Its length, according to Schomburgk, is 125

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[1] *Moco Moco* of Roggeveen, 1675, and *Moko moko* of Dixon.

[2] *Duck* point of recent charts; also called *Guayana* point in Sailing Directions for the Hobbs chart, page 31.

[3] U. S. Hyd. Off. Pub. No. 64, p. 322.

[4] *Wiini* of Raleigh, 1595; *Wayni* of De Laet, 1630, and Blaeuw, 1635; *Wayny* of Roggeveen, 1675; *Waymi* of Popple, 1733; *Guayni* of D'Anville, 1748, and Cruz Cano, 1775; *Guaine* of Caulin, 1778; *Wayma* and *Guayni* of Jefferys, 1781; *Wayne* of Bouchenroeder, 1798; *Guayma* or *Wayeena* of Arrowsmith, 1832; *Wayena* of Hilhouse, 1834; *Waini* or *Guainia* of Schomburgk, 1846; *Guayma* of Arrowsmith, 1842, and a late Venezuelan map, and *Waini* or *Guayma* of U. S. Hyd. Office.

This native word *wa-i-ni* or *wi-ni*, meaning river, stream, or perhaps running water, is of some interest, for it seems, by chance, to have come to be, under the form Guiana, the adopted name of all the Guianas. Between the Amazon and Orinoco Raleigh, in 1595, designated the *valley of Guiana*, the origin of which name is not clear, but it is supposed to be derived from the name of some river of the interior.

miles. Its main tributary, the *Barama*, is more than 80 miles long. Large steamers from Georgetown ascend the Waini for a distance said to be 80 miles to the English government station called *Barimani*. The different maps and statements about the Waini, from its mouth to Barimani, do not agree. The discrepancies relate to the *distance* and the *longitude of the mouth*. Schomburgk, be it remembered, began his boundary survey April 21, 1841, at the mouth of this river. As to this he says:

I resolved on remaining at the mouth of the Waini a sufficient length of time to enable me to fix the geographical situation of that point with some precision, and also for the purpose of ascertaining to what extent the entrance of the river was navigable.[1]

He was there ten days and found a navigable channel of from 12 to 18 feet at the bar, with deeper water inside. This is the depth at high water and was to Schomburgk disappointingly shallow.[2] Hillhouse, who was here in 1825, reports[3]

Twelve feet water on the bar of the Wayena, and the deep water is on the east shore. The Spaniards state that the water on the bar varies from ten to sixteen feet at different seasons, which must be from the influx of drift mud, a common circumstance on this coast, where I have seen a canal eight feet deep filled in one tide.

The geographical position of the intensely hot, sea-fowl covered, sand and shell bank in the Waini's mouth, where the Schomburgk brothers had their initial station, was found to be[2]

Lat. 8° 24′ 46″ N.,
Long. 59° 36′ W. Gr.

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[1] Blue Book, Venezuela (1896), No. 5, p. 1.
[2] Richard Schomburgk: Reisen. 8°, Leipzig, 1847, Vol. I, p. 110.
[3] Jour. Royal Geogr. Soc., Vol. IV, p. 331.

Most maps and charts adopt this longitude, and also place Barima point about three-fourths of a degree farther west. On Schomburgk's official map in Blue Book, No. 5, on the physical map of 1846 in Richard Schomburgk's Reisen, Vol. I, and on the Great colonial map, Barima point is placed in longitude 60° 19′ W., although Schomburgk's published longitude[1] is 60° 40′ 36″ W., some 20 miles farther west. The Hobbs chart adopts this latter value and, placing the Waini about three-fourths of a degree east of it (and all charts agree as to this), makes the shell bank in the Waini's mouth in longitude 59° 58′ W. instead of 59° 36′—i. e., about 25 miles nearer to the great mouth of the Orinoco than most maps show it. If this be correct it will agree with Im Thurn's statement[2] that the distance from the mouth of the Waini to Barimani is 80 miles, whereas most maps make it but 60. On the base map of the accompanying atlas, Nos. 1–15, no attempt has been made to reconcile these differences, but two maps of the region are shown, side by side, to illustrate the discrepancies. Apparently the true relations here can not be determined without a survey.

As to the river, from its mouth to Barimani, 60 or 80 miles, there is little to be said. It was visited by Richard Schomburgk, the botanist, but not by his brother, Robert H. Schomburgk. Hillhouse was one of the earliest travelers on the river, preceding Schomburgk by a few years. His few notes[3] with those of Richard Schomburgk,[4] and of Im Thurn,[5]

[1] Blue Book, Venezuela (1896) No. 5, p. 8.
[2] Proc. Royal Geogr. Soc., Vol. XIV, pp. 674, 675, 679.
[3] Jour. Royal Geogr. Soc., Vol. IV, p. 331.
[4] Reisen in Britisch Guiana. 8°, Leipzig, 1847, Vol. I, p. 455.
[5] Proc. Royal Geogr. Soc., Vol. XIV, p. 679.

contain all that we have found relating to this part of the river.

Im Thurn says that after passing "down the 8 miles' course of" the Morawhanna to the mouth of the Waini, he ascended the latter "80 miles (to Barimani) without passing a single house, or finding a few feet of dry land on which to rest." This was in 1883, when he made a tour of inspection going *down* the Barima, crossing by Mora passage to the Waini, which he then ascended. Hilhouse, who had taken the same route some fifty years before, says:

> On returning, I proceeded through the Mora creek into the lagunes of the Wayena; these are three enlargements of the river into lakes, the lowest the largest, with intermediate contractions, the western shores being shallow mud flats."

When Richard Schomburgk descended from Barimani to the sea, he made the whole trip without stopping, paddling all night, there being no dry spot on its banks in the whole distance on which one may land.[1] He describes this night journey, with its strange sounds of howling monkeys and frightened sea fowl. Everywhere on the overflowed banks grew the mangroves and the curida bushes, and everywhere between them hummed the bloodthirsty mosquito. In all this reach but two tributaries, both small and on the east bank, were noted. These, 6 miles apart, are the *Luri*[2] and the *Buruwaiwini*.[3]

As to the lagoons in the lower river he says:

> Somewhere near the mouth the bed of the Waini suddenly widens out into three lagoons, and again as suddenly narrows to its former

[1] Dixon's map of 1895 shows a rest house about midway in this stretch on the right bank just above the mouth of the *Buruwaiwini*. Here is a 3,000-gallon tank, necessitated by the fact that the water is often salt up to this point and higher.

[2] *Lures*, of Venezuelan map of 1896.

[3] Also erroneously *Burnwaiwini*.

width. The third (lowest) of these lagoons, which is perhaps 2 miles from the mouth, forms a lake with a diameter of perhaps 2,000 feet.[1]

A mile or so down the Waini, from the mouth of the Barimani, is a small island formed by a mass of gray granite of fine texture. On the western bank, above the Barimani, is a similar development of granite.[2] On the Great colonial map these features are too far downstream. On this small island Brown and Sawkins slept February 22, 1868.[3]

BARIMANI-MOROOCA PORTAGE.

About 80 miles from its mouth, as we have before mentioned, the Waini receives on its eastern bank the waters of *Barimani*[4] river or lagoon. Through this lagoon, with its tributary streams and an itabo difficult to pass, one may reach the Morooca river and thence the Pomeroon mouth; distance about 30 miles, of difficult boat navigation even when the streams are fullest. This passage is of economic importance, and therefore merits a careful description. Richard Schomburgk, who passed through it in 1841, sick with fever, has much to say of the natives and the snakes there, but little of the geography. It is well described by Hilhouse, who traversed it in 1824 and 1825, and also by Im Thurn, who traversed it in 1883. In January, 1883, Im Thurn went by sea from Georgetown to the Morooca, which he ascended to the itabo; then passed through the itabo to *Barabara* creek,

[1] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 455.
[2] Brown and Sawkins: Reports on geology of Brit. Guiana. 8°. London, 1875, p. 34.
[3] Brown and Sawkins: Reports on geology of Brit. Guiana. 8°, London, 1875, p. 31.
[4] *Paraman* of Venezuelan map, 1896, and the Hobbs chart; *Barrymany* of Hilhouse.

thence into *Biara* river, or creek, and finally through the *Barimani* lagoon, which joins the Waini at the head of navigation. It will be found convenient to describe as a unit this tortuous and difficult swamp route. Its length is about 30 miles, and all agree that it is a "hard road to travel." Let us begin at the mouth of the Morooca and go in a general northwesterly direction to the Waini.

The Morooca[1] is at its mouth scarce 25 yards wide, and this mouth is hidden away among the mangroves. For two or three miles up, the stream is arched over by the interlocking boughs of the mangroves, which rise from the swampy banks on either hand. Here the current is "immensely strong." A little farther up the mangroves are replaced by other trees, especially by the manni (*Moronobea coccinea*). Thirteen miles up a small break in the tree fringe on the *right*[2] bank affords a glimpse of the white sand hill on which stands the English church mission of *Warramuri*,[3] founded about 1845 and occupied, long before, by natives. To this prior occupation the kitchen middens or refuse shell heaps bear witness. In the many miles of swamp hereabout this is the only spot dry enough for a camp. Though Im Thurn says this mission is 13 miles up the Morooca, the map accompanying the statement shows it as only 5 miles. Both the official and physical map of Schomburgk show a Catholic mission about 13 miles

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[1] Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 670.

[2] The *right* bank, as used throughout these notes, conforms to the usage of rivermen who designate the banks as *right* and *left* when going *downstream*.

[3] *Wazamurie* of Brown and Sawkins: Reports on geology of Brit. Guiana. 8°. London, 1875, p. 34, and *Waramuri* of their map.

from the Morooca mouth and on the left or northern bank. This appears to be the *Spanish Arawak mission*, across the river from which was the settlement of Captain Jan, an Arawak chief. The Spanish Arawaks still living here are described by Im Thurn as "a fine people, almost purely redskin in their habits" and of mixed Spanish and native blood. They fled from their native homes on the Orinoco shortly after the Venezuelan war of independence—i. e., about 1820—and settled here. A few Portuguese have settled among them and intermarried. Their settlements are on the comparatively high land—i. e. the "sand reefs"—of the upper Morooca, where they cultivate the soil.[1] Brown and Sawkins call this *Santa Rosa* mission. The lowest reach of the Morooca, some 5 (or 10?) miles long, is shown as nearly straight and running from northeast to southwest. At its upper end it bends abruptly round to north, and at the bend receives from the south two tributaries, *Manawarina*[2] creek and *Haimara*[3] creek, their mouths about half a mile apart. A few miles below this mission the Morooca receives from the north the waters of

[1] For some account of these people see Timehri: December, 1884, p. 366.

[2] *Manawarima* of Schomburgk's official map, of Brown and Sawkins and of Great colonial map; *Manwaring* of Schomburgk's physical map; *Manawarin* of Im Thurn, Proc. Royal Geogr. Soc., Vol. XIV, p. 672; *Manuerin* of Dixon; *Manararima* of Venezuelan map of 1896; *Manguareña* of Codazzi; *Manawarina*, Jour. Royal Geogr. Soc., Vol. XII, map at end; *Manwareeny* of Hilhouse, Jour. Royal Geogr. Soc., Vol. IV, map and text, p. 324.

[3] Thus on the Great colonial map, on Brown and Sawkins' map (but *Himuzacabarra* of text, p. 34), and on Schomburgk's official map and physical map; *Haimaracabra* of Im Thurn; *Maracabura* of Venezuelan map 1896; *Haimara* creek of Hilhouse, Jour. Royal Geogr. Soc., Vol. IV, map, and *Hamaira Cabrara* of text, p. 324; *Muracabura* of Codazzi; *Imacobra* on map in Jour. Royal Geogr. Soc., Vol. XII, at end. *Haimara* is a native name for a fish (*Macrodon trahira*). See Jour. Royal Geogr. Soc., Vol. IV, p. 328; and Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. III, p. 632.

Waracabara[1] creek. Ascending the Morooca, it rapidly narrows, and here and there open savannas covered with "long grass and white lilies" reach the banks.[2]

Im Thurn[3] says:

After five hours' boat journey up the Moruka, the country on each side of the river becoming gradually more and more open—the river at last winding through open savannahs, and broadening out here and there into pools so thickly set with water-lilies that it was difficult to force the boat through them—we reached the point where the waterway leaves the river and passes along a narrow itabbo, or artificial water-path, which connects the Moruka with the Waini River. This connecting passage is in all about 30 miles in length; but only about the first 10 miles of this is actually semi-artificial itabbo, made by the constant passage of the canoes of the Redmen through the swampy savannah. After that it runs into the Barabara and then into the Biara River, which latter runs into the Baramanni River, and that again into the Waini, at a point about 80 miles from its outflow into the sea.

Continuing he says:

We found the itabbo section of this passage very difficult to get through. Generally, it was hardly wider than the boat, and its many abrupt windings added to our difficulties. Again, the trees hang down so low over the water, that even after we had taken the tent off the boat, we had either to force the boat under the low-lying branches or make a passage by cutting them away. On either side of the channel the ground is so swampy as hardly anywhere to allow foothold of even a few inches in extent. The light hardly penetrates through the dense roof of leaves.

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[1] *Waracobra* of Jour. Royal Geogr. Soc., Vol. XII, map.
[2] Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 672.
[3] Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 674.

And again he says:

This itabbo is quite dry in the longer dry seasons, and is then, of course, impassable; for walking along its banks is out of the question—a circumstance which has had a good deal to do with the fact that the parts beyond had up till then been almost completely shut off from the rest of the colony. Even now, though the overhanging trees have been cleared from this part of the waterway, it presents no slight obstacle to the swarm of gold boats which would press through it to the goldfields beyond.

These rather long extracts have been made because of the vividness of the picture they present.

This itabo is called by Codazzi "Arrastradero que comunica del Caño Piara á Moroco," i. e., portage which connects the Piara (or Biara) bayou with the Morooca. Humboldt[1] is taken as authority for this meaning of Arrastradero. It would seem to be a dragging place rather than a carrying place or portage.

The itabo passed, one turns abruptly into the narrow and tortuous *Barabara* river, or creek, at first hardly wider than the itabo itself, but soon widening through dense bush composed chiefly of the graceful manicole palms (*Euterpe edulis*), decorated with large and showy orchids.

This difficult route from the mouth of the Morooca to the Barabara constitutes, according to Schomburgk, the boundary line as claimed by Venezuela. It is somewhere in this locality, perhaps at the point where the itabo leaves the Morooca, that Dixon locates *Pickersgill*, a British government station.

Through the passage from the Morooca to the Waini, which we are describing, Hillhouse passed in July, 1824, and again

[1] Personal narrative; Bohn edition (1885), Vol. III. p. 343.

in 1825.[1] The importance of this region makes it desirable to also cite somewhat fully from his account of it.

He says:[2]

The debouchure of this (Morocco) creek is about five miles north-west of the Pomeroon river. Proceeding upwards to the south, in about ten miles it receives the Manwareeny creek, whose general course is to the north: from this point the Morocco creek verges west by north; and in less than half a mile, it receives the Hamaira Cabara, whose course is from the south-west: hence the creek proceeds about west by the north till it reaches a small creek called the Para;[3] when it forms nearly a semicircle, going first south, then west, and latterly north, through the Savanna to its source.

To the junction of the Manwareeny, the banks of the creeks are for the most part drowned land; the south bank being slightly elevated—the north bank a vast flooded savannah. At the Para creek commences a succession of sand-reefs at irregular distances, for the most part parallel with the coast, and at various heights, from five to thirty feet. On these reefs are situated many Indian villages—Warows, Arawacks, and Spanish Indians, refugees from the missions of the Main. Of the original formation of these reefs it would be irrelevant to form any conjecture. They are composed of sand, clay, and fragments of stone or gravel, of burnt clay, silex, and iron ore. * * * The alluvial formation in these swamps is for the most part on a lower level than that of the immediate coast, but its deficiency is supplied by immense masses of semi-decayed vegetable matter, called *pegas*, to the depth of from five to fifteen feet. * * *

The reefs can be settled piece-meal, and are accordingly occupied by a population of Indians more dense than in any other part of the colony, being of very superior fertility to any other extra-alluvial tracts. * * *

At the western extremity of the detour of the Morocco is a large

[1] Jour. Royal Geogr. Soc., Vol. IV, p. 326.
[2] Jour. Royal Geogr. Soc., Vol. IV, p. 324.
[3] Apparently not shown on any map.

savannah, through which runs one of those extraordinary canals without current, which, on a smaller scale, like the Cassiquiare, joins two rivers and insulates the coast lands from the Morocco to the Wayena. These canals are called *Etabbo*, from Eta (*Mauritia*), and Abbo, a water course, being generally found in large swamps of mauritias, which is the case with this one: the verge of this savannah being so exclusively surrounded by *Eta bush* that scarcely another tree is to be recognized. * * *

The Etabbo is about eight feet wide and four deep, but in the dry seasons much less, as loaded canoes can not then pass. It is an incalculable blessing to the Indians of the Morocco, being a natural internal navigation, which secures to them the fisheries both of the Wayena and Oronoque; from hence through the Kamwatta,[1] Barrabarra, Beara, and Barrymany creeks, twenty hours' pull brings them to the lagunes of the Wayena. * * *

The Beara and Barrymany creeks are bordered exclusively by the manicole palm, overtopped by high trees of the Mora.

The fruit of this palm, "like a small black cherry," ripens in July and attracts countless flocks of parrots, of all kinds, macaws, marudis, powis, and monkeys, whose shrieks and cries render these creeks at that time a veritable pandemonium of noise.

Brown and Sawkins, the geologists who traversed this passage from the Morooca to the Waini in February, 1867, describe the sand reefs at the old Catholic mission and the adjacent savannas thus:[2]

At Santa Rosa there are hills from 20 to 30 feet above the river, extending northward for some distance. The soil there is of a light

[1]Kamwatta is a native word meaning bamboo; Schomburgk wrote it *Camota* as also *Kamwatta*. *Kwematta* and *Kwemata* creek and village of Dixon, p. 339, seems to be the same word.

[2]Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 31.

yellowish colour, containing small ferruginous nodules or pellets scattered over the surface. From Santa Rosa on through the Itaboo, to the head of the Barabara river, there are many tracts of open land, composed of a black bog-mud, formed of decayed vegetable matter, covered with a growth of rank sedges and rushes; these are called savannas, and are evidently old silted-up lakes. The land adjoining the Barabara and Baramanie creeks is composed entirely of alluvium.

Schomburgk's official map shows three Indian villages along these streams, one of them, the westernmost, called *Asacota*,[1] on the west bank of *Asacota* creek. Here Richard Schomburgk, sick with fever, lodged in 1841.

The Baramanni, where it is joined by the Biara, is about 100 or 150 yards wide, and very deep. * * * The so-called Baramanni river is, in fact, not a river at all, but a very elongated lake or lagoon, of perhaps 20 or rather more miles in length, the lower end of which opens into the Waini, while the upper end discharges part of its surplus water into the sea.[2]

The *Biara*, a river of much the same character (as the Barabara), though naturally larger than the *Barabara*, is so small as hardly to deserve more than the local name of creek. To a portion of this waterway Schomburgk's official map applies the name *Haimaruni* creek.

Emerging now from this waterway, which we have for convenience designated the *Baramani-Morooca* portage, we resume our description of the Waina, going upstream.

On leaving the Barrymany, and entering the Wayena, here about two hundred yards broad, the scene changes at once. No more manicoles, nor feeders thereon; but now and then a flock of vicissi ducks * * * without exception, the most superb viand of any part of the world.[3]

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[1]Also *Ascota* by Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 457.
[2]Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 675.
[3]Hilhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 326.

From Baramani creek to the Barama's mouth the *Waini* has a fairly straight course southwesterly about 15 miles. In this stretch one passes the mouth of the itabo *Moreba* (Wabarina river of Schomburgk),[1] already described, on the western bank, and farther up the mouths of two other streams debouching on the opposite bank. These are the *Canyaballi* and *Great Canyaballi* of Schomburgk. On the south bank of one of these streams not far from its mouth is a native village called *Canyaballi*. "Three quarters of a mile up the Canyaballi creek," say Brown and Sawkins,[2] "the granite again occurs," coarser grained than that at Granite island and in huge masses, "most curiously furrowed by straight and tortuous grooves of considerable depths." The country to the south and southwest around the vicinity of *Canyaballi* village is composed of granitic hills covered with a coarse sandy soil mixed with a vegetable mold, rendering it productive.

From the junction of the Barama with the Waini up the Waini to "the falls" is about 40 miles. The course of the river in this stretch, as laid down on late maps, is copied from Brown and Sawkins, the geologists, who traversed this part in March, 1868. Prior to the publication of their report, the river appears, on all maps on which it is shown at all, as a much generalized sketch. On recent maps some details appear. Im Thurn, fifteen years later, in 1883, also ascended to "the falls." These appear to be the only travelers who have published any descriptions of this part of the *Waini*. Its general course downstream from "the falls" (*Imoti* cataract of the

[1] Jour. Royal Geogr. Soc., Vol. XII, map at end.

[2] Reports on the geology of Brit. Guiana. 8 , London, 1875, p. 34.

Great colonial map) is northeasterly for some 35 miles, when it bends around to west, and after a northwesterly course of about 8 miles unites with the Barama.

Anaparie, a native village on the right or eastern bank and about 25 miles above the Barama's mouth, marks the limit of the tidal influence in the Waini.[1] From this village to the mouth, the Waini is free from rocks. Boat navigation ends here. Above, one may go to "the falls," 15 miles farther, in "wood-skins" or native canoes. To this point Brown and Sawkins journeyed together; and here they parted, Brown going by canoe up to the falls and Sawkins traveling overland to the Pomeroon. They say:

> On the river Waini, above its junction with the Barama, the left (? eastern) bank, close to the river's edge, attains an elevation of 15 feet above the highest tide, and extends eastwardly and southwardly as a level table land. The soil is loose and sandy and the few small rocks upon it are granitic. All the right (? western) bank is low and swampy, and composed of alluvium. Just before reaching Aniparie both banks become slightly elevated a foot or two above the river.[2]

On the eastern bank, 10 miles from the Barama's mouth, an Indian village, called *Wahpanna*, is shown on Brown and Sawkins' geological map as also on the Great colonial map. Seven miles farther up, and on the same bank, the latter map shows another, called *Hubana*. Near the lower village *Waitara*[3] river joins the Waini from the southeast. Somewhere in this vicinity, situated on a hill, was—perhaps is—the Carib and

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[1] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 36.

[2] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 36.

[3] *Waitaru* of the Great colonial map.

Akawai mission station *Kwobanne*, established some years prior to 1883. Can *Wahpanne*, *Hubana*, and *Kwobanne* be variant renderings of the same name? Nearly opposite the mouth of the Waitara a small unnamed stream falls in on the western bank of the Waini, and a few miles above, another, called *Amileyah* river; and 6 miles above yet another on the same bank, called *Anarkóo*.[1]

Mariwaru[2] is one of the principal affluents of the upper Waini. It flows northwesterly, is 20 miles long, very tortuous, has many small affluents, and joins the Waini near *Anaparie* village, the head of tide-water and boat navigation. A narrow divide separates its head waters from tributaries of the Pomeroon. Sawkins, following a path along its southern bank, "walked across the hills"[3] separating the Waini and Pomeroon drainage basins. South of this trail some authors locate the *Blue* mountains,[4] not shown on recent maps and which, if they exist, must be inconsiderable hills.

"The falls" of the upper Waini which mark the head of navigation for canoes are called on the Great colonial map *Imoti* cataract. At this point Schomburgk's official map shows *cataracts*, and some miles below another cataract called *Cuyari Malalli*. Both of these Schomburgk doubtless derived from Indian reports. From "the falls," which we may now call

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[1] Erroneously *Anarhoo* on Great colonial map.

[2] *Marimaru* of Brown and Sawkins, p. 33.

[3] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 33.

[4] See Storm van 's Gravesande's sketch of 1749: Blue Book, Venezuela (1896), No. 1, Appendix III, map 5, where they are called *Blauw Bergh;* also called *Blaauwenberg* in same, No. 3, p. 99.

Imoti, the Waini has a tortuous course southeastward 15 miles to *Anaparie*, the head of tide and of boat navigation. Numerous small streams fall in on either bank, of which two on the western bank are called *Moraquiaparu* and *Pelibelimba*. There is in this stretch a native village on the west bank called *Terimbona*.

Imoti falls, "though small," says Im Thurn,[1] "are among the prettiest of the many falls in the country." The river runs over a huge dike of fine-grained gray granite, about 200 yards wide, which crosses the river in a nearly east-west direction. The water falls about 20 feet into a circular basin, apparently quite surrounded by dense-growing gnarled trees, whose twisted branches are swathed in a thick clothing of long green moss. Hills approach the Waini in many places in the upper reach, and about the falls are 120 feet above its level.[2] Beyond the falls the country has been visited only by natives and possibly the gold hunter. Im Thurn says:[3]

> From information derived from Indians living beyond the falls, it is, however, certain that, as is usually the case, an Indian path or track leads from here, connecting the upper reaches of the Waini with those of the Kuyuni and Barama.

Beyond *Imoti* cataract the Waini is supposed to have a southeasterly course some 20 miles, heading in the low divide which separates the Cuyuni from the Waini basin—i. e., somewhere in the *Blaauwen Bergh* of Dutch authors. On its western bank, just above Imoti, the Great colonial map and Brown

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[1] Proc. Royal Geogr. Soc., Vol. XIV, p. 676.

[2] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 37.

[3] Proc. Royal Geogr. Soc., Vol. XIV, p. 676.

and Sawkins' geological map show a tributary, the *Arwapai*,[1] 15 or 20 miles long, and separated from the head waters of the *Cutuan*, an affluent of the Cuyuni, by only 2 or 3 miles. A range of hills, doubtless laid down from Indian reports, is supposed to here form the watershed between the Waini and Cuyuni. Here, as everywhere along the Waini, dense forest covers all the country down to the water's edge.

This completes our account of the *Waini* and its drainage basin except its main tributary, the *Barama*, now to be described.

BARAMA RIVER.

This river, called *Paraman* by Codazzi, is the main tributary of the Waini. "Indeed," says Im Thurn,[2] "it is a 'coequal' branch of the Waini, which in character it closely resembles." At its junction with the Waini it is 150 feet wide.[3] Its length is 90 to 100 miles, its course very tortuous, and its general direction from source to mouth ENE. It is supposed to head near the northern rim of the Cuyuni basin in longitude 60° 20′ W. Gr. Its entire course is through dense forest. The rocks occurring along it are similar to those on the Barima, "being granite, gneiss, and schistose rocks."[4] In the lower reaches its low banks are overflowed, and the rapids, troublesome in low stages, are passed over "almost imperceptibly" in high stages.

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[1] *Ararapai* of Venezuelan map of 1896.

[2] Proc. Royal Geogr. Soc., Vol. XIV, p. 676.

[3] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 449. Perhaps *feet* is an error for *yards*.

[4] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 34.

From its mouth to the principal falls, called by the natives *Dowakaima*,[1] is, according to Im Thurn,[2] 70 miles, a distance which in 1883 he was "seven or eight days" in ascending. Brown and Sawkins, making a similar journey in February, 1868, took twelve days.[3] The low, submerged banks of the lower reaches slowly rise as one advances upstream, and at a distance of 15 to 20 miles from the mouth attain a height of 20 feet. Here the tortuous stream undercuts its banks, caving off great masses of vegetation.[4] Eight miles from its mouth it receives on its north bank a tributary called *Wibra* on the Great colonial map. On Schomburgk's physical map this is called *Waiwa*, and on Brown and Sawkins' geological map *Hina*. Richard Schomburgk calls it *Waiwa*, and notes that in this vicinity the Barama had lost its salty taste.[5] Four miles farther up, the small stream *Epenie* falls in on the opposite bank. Henceforward to Dowakaima falls, ledges of rock cross the river here and there, making small falls at low stages of water. Richard Schomburgk in October, 1843, ascended the Barama 40 miles from its mouth to *Cariacu*, an Indian village on its northern bank. Sir Robert Schomburgk had, two years before, ascended from Cariacu to the mouth of the *Aunama*. Beyond the Aunama it appears not to have been ascended except by Indians and prospectors

[1]Often written *Dowacaima*. *Dowocaima* of Blue Book, Venezuela (1896), No. 5, p. 16; also of Schomburgk, of Great colonial map, and of Brown and Sawkins' map, but *Dowocima* of their text.

[2]Proc. Royal Geogr. Soc. Vol. XIV, p. 676.

[3]Reports, p. 31.

[4]Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, pp. 450–451.

[5]Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 449.

The various Schomburgk maps show the river from Cariacu to the mouth, 40 miles, as a mere sketch. The details of later maps appear to be due to Brown and Sawkins, who show in this stretch some details of the river's course and several tributaries besides the two already mentioned. On the north bank appears *Anodoolie* river and on the south bank *Whycarapie* and *Curasanie* rivers. Above the Anodoolie, the river flows in a generally northeast direction for some 20 miles, receiving on its left or northern bank several small affluents, first shown on Robert Schomburgk's official map. These are, according to Brown and Sawkins' geological map and the Great colonial map, the *Paraqua* and *Cumaka*, which unite and flow to the Barama; the *Wairi*, which has two tributaries called *Duripara* and *Paripa*,[1] and lastly *Ipoticurru*. According to Schomburgk's official map, however, *Paraqua* should be *Pa*, *Cumaka* should be *Can*, *Duripara* should be *Duri*, while *Ipoticurru* is spelled by Schomburgk, *Ipotaikuru*. Just north of these streams a low range of "swamp hills" is shown as forming the watershed hereabouts between the Barima and Barama. Perhaps they are the *Lalempo* hills mentioned by Richard Schomburgk[2] as being so called by the Warraus and consisting of "several isolated, thickly wooded hills."

Cariacu is a Carib village on the north bank of the Barama in a great bend of the river, and is, according to the maps, in longitude 59° 37′ W. Gr. This place, it will be remembered, marks the end of Richard Schomburgk's journey up the river and the beginning of Robert Schomburgk's farther ascent of it.

[1] *Parapu* of the Great colonial map.

[2] Reisen. 8°, Leipzig, 1848. Vol. II. p. 152.

This farther ascent was begun by Sir Robert and his party July 11, 1841, and the description of the river from here upward may be best told in his own words:[1]

We departed from *Cariacu* on the 11th of July. The *Barama* resembles much the upper Barima; its banks are clothed with a similar vegetation, and it is equally serpentine in its course. I noticed a good deal of potter's clay, used by the Caribisi for the manufacture of pottery, which for its durability is highly esteemed by the colonists. This clay has a grayish color, and is mixed with the loose materials of decomposing granite.

The rivulet *Nakuwai* was the largest tributary which we passed in the course of our first day's ascent. It joins the Barama on its left bank. We noticed the first rocks lying in the river's bed above the rivulet *Abocotté*. About a mile and a half above this, the *Erawanta* and *Mazucini* join the Barama close to each other. During the rainy season, when the bed of the river is full, it forms numerous off-flows, which adopt a more direct course than the river itself, and join it again at some distance on. The Indians, who are acquainted with these branches, navigate them, and thus shorten the ascent materially.

We passed, on the afternoon of the 13th of July, some hillocks, and, soon after, the first rapid, formed by dikes of granite; and reached a settlement of Waikas, called *Cadui*,[2] which we were told was the last inhabited place below the great fall (*Dowakaima*). We were here struck with an air of plenty; the cassava grounds were extensive; yams, sweet potatoes, plantains, and bananas were abundant; also the paripi palm, and papayas, of which the fruit resembled a large melon, some of them measuring 28 inches in circumference. Sugar-cane, cashew, and cotton-trees grew around the huts. A number of wild fowls was observed; moridies, powies, parrots of all plumage; several sun-birds, all tame, and associating amicably with one another.

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[1] Jour. Royal Geogr. Soc., Vol. XII, pp. 189–191.

[2] *Cadis* of Blue Book, Venezuela (1896), No. 5, p. 16.

I succeeded in procuring a set of circum-meridian altitudes; according to which the settlement was in 7° 19′ N. latitude. We heard quite distinctly during night the roaring of the great fall *Dowocaima*, which is about two miles distant, and bears S. 58° W.

Having engaged three more Indians to accompany us from Cadui to the Cuyuni, we started next morning at an early hour; and after passing some rapids, approached the great fall. We had to unload near the island *Wayaruima*, and carry the canoes and luggage 2 miles overland.

These cataracts surpass in grandeur the great falls of the river Demerara, to which in their structure they bear some resemblance. The whole fall on the Barama amounts to about 120 feet in a distance of 2 miles; but, from the sinuosities of the channel, there is no one point which affords a *coup-d'œil*.

The grandest scene is offered by the three upper falls, where the river, narrowing into about 80 feet, rushes turbulently down the precipice in three jets, and forms, in the distance of about 100 yards, a fall of 35 to 40 feet perpendicular. This part is called *Dowocaima*, and, as we saw it at the height of the rainy season, when the river is full to overflowing, the scene is sublime indeed. The banks were bordered by a primitive forest, and foliage of every hue: among which the bright red of the young mora-leaves formed a striking object. Lianes, reaching from boughs 60 feet high down to the water's edge; a thousand creepers, so closely enveloping whole rows of trees as to give them a fanciful resemblance to old massy columns crowned with ivy; white festoons and clusters of purple and yellow salver-shaped flowers trailing from tree to tree; all combined to form a vivid picture of tropical vegetation. The uproar of the masses of water which rush over the ledges of rock, and envelop in foam the surrounding scenery, added to the characteristic features of the landscape.

The ledges of rock are composed of gneiss, their stratification being S. 33° W.; they form an impediment to all further navigation, and are such as, if a denser population should render the step necessary, could only be overcome by canals or railroads. In the absence of these, our

Indians took their light bark canoes on their heads, and carried them to that part of the river where there were no serious obstacles to its further navigation.

We passed next day the rapid *Massiwinidui* and several others of less consequence, and encamped in the evening at the foot of the fall *Aunama*, from whence the path leads to the Cuyuni. The river *Aunama* joins the Barama just below the fall. The latitude I determined to be 7° 14′ N. At a day's journey above this fall there is a Caribisi settlement; further up the Barama is uninhabited. It is said to have its source on the same parallel of latitude with the Barima and Amacura; namely, in the extensive savannahs N. of the *Ikruyéku* mountains.

We commenced our over-land journey on the morning of the 16th of July, [1841] and traversing occasionally hillocks from 100 to 150 feet high, followed the valley through which the small river *Aunama* flows toward the Barama; we reached at noon an Indian settlement. The provision-grounds around it were in good order, but the houses were tenantless. From this point our tortuous path continued in a W. S. W. direction, still following the Aunama. After a march of 6 hours, we arrived in the afternoon at a settlement of Carabisi Indians, called from the rivulet on which it is situated *Aunama*, and, according to circum-meridian observations of the ✳ α Gruis, in 7° 9′ N. latitude. On the ridges which we were this day crossing, and which generally stretched N. by W. and S. by E., I observed several tracts of granitic blocks, the direction of which was N. W. by W. The trees we met with on our journey were lofty, and there was less underwood than along the banks of the rivers. The mora, which had been so abundant, became scarcer the further we receded from the Barama, and was replaced by a great variety of timber-trees, as kakaralli, determa, limaballi, cedar, &c. We did not observe any green-heart, a wood much esteemed by shipwrights and house builders.

Our course on the 17th of July continued W. S. W. We crossed, at 10 o'clock in the morning, the *Aunama* for the last time; and having passed a ridge of small hills which stretched S. by W., we stood soon

after on the western branch of the rivulet Acarabisi. We had now reached the most elevated spot between the Cuyuni and Barama, and entered another system of rivers, the waters of which, instead of flowing northwards to the Waini and Barama, run to the S.; and, uniting with the Cuyuni, are conveyed to the Atlantic by the Essequibo.

From this ridge of hills the ground slopes southward to the banks of the Cuyuni; and I estimated the highest ridge which separates the two systems at 520 feet above the level of the sea. Heights which really deserve the name of mountains commence 20 miles further westward. The *Aunama* and *Acarabisi* are only divided from each other by hillocks which rise not more than from 60 to 100 feet above their level.

After this long extract from Schomburgk but little remains to be said to complete our account of the Barama basin.

From Cariacu upward the Barama receives on its left or northern bank numerous tributaries. Schomburgk's official map shows the following, which are here mentioned in their order, going upstream. By the side of these are written the corresponding names as they appear on certain other maps as indicated:

Schomburgk's official map in Blue Book, No. 5.	Great colonial map.	Brown and Sawkins' geological map.	Map in Jour. Royal Geogr. Soc., Vol. XII.	Physical map in Richard Schomburgk's Reisen.
Nackuwai	Neckuwai	Nookuwai	Nakuwai	Neckuwai.
Apipana	Apquiana	Apipana	Apipane	
Kashiwaikura .	Kashawaicurru	Kashawaiemru	.....	
Sawiare.....	.....	.....	Sawiare.....	
Akekyuru	Aranka.....	Aranka.....	Akehyuru	Akekyuru.
Monosse	Monosse	Monesse	Monossee	Monossi.
Takutu	Takutu.....	Takutu.....	.....	
Aimutong	Aimutong	Aimutong	Aimutang	
Cassamaparu ..	Cassamapari ...	Cassamaparu ..	Cassamaparu .	
Massiwi	Massiwindui...	.....	Massiwini	Massiwindui.

On the opposite or southern bank we have similarly:

Schomburgk's official map in Blue Book, No. 5.	Great colonial map.	Brown and Sawkins' geological map.	Map in Jour. Royal Geogr. Soc., Vol. XII.	Physical map in Richard Schomburgk's Reisen.
Pakuamo	.....	.....	.....	Pakuamoi.
Yessaitabo	Yessiatado	Yessiatabo	Yessaitabo	Yessiatabo.
Hainana	Abocotté ?	Mazuwini ?	.....	Hainana.
Erawanta	.....	.....	Erawanta	
Mazuwini	Mazuwini	Mazurini	Mazurwini	Mazuwini.
Aruparu	Aruparu	Aruparu	.....	
Tanobo	Tonabo	Tanobe	.....	
Acayuckyuru	Akayckyuru	Akackyuru	.....	
Taboyeekyuru	Taboyeckyuru	.....	.....	
Toboyeeku	Tooyeku	Toyeku	.....	
Waramai	Waramai	Warami	Waramai	
Aburakuni	Aburakuni	.....	Aburakuni	
Aunama	Aunama	.....	Aunama	

According to Schomburgk's official map, a small river called *Massiwi* joins the Barama, north bank, just *above* Dowakaima fall, and the *Wuiri*, a much larger stream, some 30 miles *below* the fall. Dixon, on the other hand, makes his *Waiari* creek (which is clearly *Wuiri* river of Schomburgk) debouch *above* the fall, just where Schomburgk has the *Massiwi*. Obviously there is some gross error here or unexplained confusion of names. We shall follow Dixon, not now having time to clear up or to try to clear up the confusion.

Waiari creek of Dixon is a stream 25 miles long, with several tributaries, and its head waters are in the Barima gold district. Two Indian villages, *Old Waiari* and *New Waiari*, are shown on its upper tributaries. Of these tributaries, one is called by Dixon in his text *Wakenamo*. New Waiari, the principal settlement of this region, consisted, in 1894, of some six houses, surrounded by a fine clearing abundantly stocked

with cassava, yams, sugar cane, pineapples, guavas, watermelons, lime trees, cotton, etc.[1] Dixon also shows a tributary of the upper Barama, north bank, called *Kwematta*, in which he noted three considerable falls.

On this creek is an Indian settlement, spelled on his map *Kwemuta*, but in his text *Kwematta*.[2] Where the Kwematta joins the Barama there is an Indian settlement, *Arrosiko* (spelled *Arosiko* on Dixon's map), from which a path leads to the Cuyuni. Arrosiko is on the right or south bank of the Barama and some 10 miles above Dowakaima fall. Four or 5 miles above Arrosiko is the settlement *Turroturro* of Dixon.[3] Near the foot of Dowakaima fall is the island and rapid called by Schomburgk *Wayaruima*.[4] Perhaps this is only a variant form of *Waramai* or *Warami*, the name of a stream near by. Brown and Sawkins show, a little below this, an island and rapid, called in their text *Apaequa* and on their map *Apaoqua*,[5] where "granite in irregular bosses" was observed. Northwest from here, on the north bank, is *Tamanua*[6] mountain of Schomburgk.

Having now completed an account of the Waini river and its tributaries, we return to the coast and consider that nameless island or peninsula lying between the Waini and the sea,

[1] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 339.

[2] It will be remembered that the word *kemcatta*, or *kwematta*, is the native word for a species of bamboo. Dixon, p. 340, says that near the mouth of the creek "I met with the most extensive brakes of the small-leafed variety of bamboo I had yet seen."

[3] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 340 and map.

[4] Blue Book, Venezuela, (1896), No. 5, p. 16.

[5] *Apaegua* of the Great colonial map; *Apaequa* of Schomburgk's physical map.

[6] *Tamanna* of Brown and Sawkins' map.

and almost or quite isolated from the mainland by the Moruca-Barimani waterway, previously described. This nameless insular or peninsular tract appears to be about 80 miles long, trending in a generally northwest-southeast direction and with a maximum width of about 15 miles. It is a delta swamp; is below the level of high water; is fringed throughout almost or quite its entire border by a dense growth of palms, mangroves, and aquatic plants, and appears, on the whole, almost if not quite impenetrable, being without land to walk on or water to navigate on. The action of the surf on the ocean side and the rivers on the landward side has been to form a low and feeble rim on which the palms and mangroves and low bushes have secured a footing, and thus we have a ponded area within, where aquatic plants, as sedges and rushes, get a footing, and which pond or lake slowly silts up with decaying vegetation and sediments brought during inundations. In the interior this process has not gone far enough to form land that will support trees, and so we have what is known in the country as a wet savanna covered with grasses and sedges. In crossing from the Morooca to the Waini one may get glimpses of the south end of this interior savanna. The interior of Barama island is perhaps of the same character, though as far as known it is still unpenetrated by the white man.

On the outer or seaward border of this tract most maps show a point called *Cocali*,[1] lying in latitude 8° N. and some

[1] Point *Cocaly* of Arrowsmith, 1819; Punta *Cocales* of Codazzi; of Richard Schomburgk and of late Venezuelan maps; Punta *del Cocal* of a Spanish chart of 1813; also erroneously *Cocati*. In English it would be *Cocoanut* point.

25 miles northwestwardly from the mouth of the Morooca. Some of the earlier maps show a river, the *Bayñe*, or *Baini*, in this vicinity. Late nautical directories of the coast say:

Bayne river has been searched for, and it is asserted as not existing, there being only a few small creeks which dry at a quarter ebb between the Waini and Moruka rivers.[1]

The coast line here is apparently unsurveyed. Its appearance on the latest charts differs little from its appearance on the maps of 1820 to 1830. Of these maps of seventy-five years ago Hillhouse wrote,[2] after passing along this coast:

The coast from Pomeroon to the Wayena, as laid down in all maps, is totally imaginary. In running down, I observed no promontories and no creeks. The Indians state that there are none, but an uninterrupted north-west line, with a low mud flat in front far out at sea, and in some places spits of sand on which are rollers.

POMEROON RIVER.

Although this river has been known for three centuries, and settlement and cultivation along its banks began at an early day, still we find no satisfactory geographic description of it. Its name has been variously given under two general forms, *Pauroma*[3] and *Poumaron*, each variously spelled. No statement of its origin or meaning has been found.

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[1] U. S. Hyd. Off. Pub. No. 88, p. 13.

[2] Jour. Royal Geogr. Soc., Vol. IV, p. 331.

[3] *Pauroma* of Raleigh 1596, De Laet 1630, and Blaeuw, 1635; *Pouroma* of Speed, 1626; *Pawroma* of Sanson, 1656; *Poumaron* of Roggeveen, 1675, D'Anville 1748, Bellin 1763, Cruz Cano 1775, Jefferys 1781; *Poumarou* of Delisle 1700, Popple 1733; *Ponmaron* of Bouchenroeder, 1798; *Pumaron* of Güssefeld 1796, Codazzi 1840; *Poumaron* or *Baurum* of Arrowsmith, 1832; *Pomeron* of official Venezuelan map, 1896; *Pomeroon* (*Pawroma* or *Paroma*), Schomburgk's Raleigh; *Pomeroon* of Temehri, Netscher, Blue Book, Schomburgk, etc.; *Pomerun* of late English writers, Brit. Admiralty chart No. 1801, Dixon, etc.

The total length of the river is 50 to 60 miles; of the upper parts little or nothing is known. Even of the lower and better known part the maps are so discordant that only general statements respecting it are possible. The *Morooca* and *Pomeroon* debouch in the northern and southern ends respectively of a slight indentation of the coast which appears to be some 4 or 5 miles long, the different maps showing it as from 1 to 10 miles. According to Richard Schomburgk it is about 7 miles.[1] As to the Pomeroon itself it is said to be—

> not of the slightest use to any but vessels of the lightest draft, on account of the extensive mud flats off the entrance. They, in all probability, dry right across at low water springs. The mouth of the river is 300 yards broad with a depth of 18 feet.[2]

The eastern point of entrance, called in the Coast Pilot *Pomerun*[3] point, "is not seen (as one approaches from the sea) until on a southerly bearing; the trees are high and regular on the east (Pomerun) point, lower and irregular on the west entrance point." The Morooca entrance is marked by a shell beach "difficult to see except in the forenoon, and only then when a vessel can get within 5 miles of the land. The mouth of the Morooca is distinguished by detached clumps of trees, which from some points of view appear as four." Naval officers report the current on this coast in March as "generally setting to the NW. about 1½ knots."[3]

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[1] Reisen. 8°, Leipzig, 1848, Vol. II, p. 444.

[2] U. S. Hyd. Off. Pub. No. 88, pp. 13–14. Im Thurn (in Timehri, 12°, Georgetown, 1883, Vol. II, p. 216) says: "The Pomeroon at its mouth may be some 1,000 or 1,200 yards wide."

[3] U. S. Hyd. Off. Pub. No. 88, p. 13.

The eastern point of entrance is Cape *Nassau*[1] of most maps; also called *Shower*, *Dry*, *New*, and *Pomeroon*.

For about 15 miles from its entrance the course of the Pomeroon is almost parallel with the coast, being separated from the sea by a narrow peninsula. This narrow peninsula is on Bouchenroeder's map divided up into long, narrow lots, which are numbered. These lots are about one-fourth of a mile wide, and their lengths, which are determined by the width of the peninsula, range from 1¼ to 2 miles. Small tracts at Cape Nassau were "reserved" and batteries were "projected" on each side of the Pomeroon mouth. Richard Schomburgk, who visited this locality in 1841 and again in 1843, says of this region, formerly so extensively cultivated, but three plantations remain, viz: *Dumbarton Castle*, *Caledonia*, and *Land of Promise*, and these gave promise of speedy abandonment.[2] United States Hydrographic Publication No. 88, page 13, published in 1894, says the northernmost estate on this coast is *Hampton Court*, where two tall chimneys of nearly equal height are landmarks for the sailor. This is some 20 to 25 miles farther south than *Land of Promise*, the south-

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[1] *C. de la Shower* of De Bry, 1599; *C. dela Shower*, *C. Nassou* of De Laet, 1630, and Blaeuw, 1635; *Cabo Drooge ofte Nieuwen hoec* of Roggeveen, 1675; *C. Nassau*, of Sanson 1650, D'Anville 1748, Moll 1709, Bellin 1763, Cruz Cano 1775, Mannert 1803, Arrowsmith 1832; *C. de Nassau* of Delisle, 1703; *C. Nassaw* of Delamarche, 1767; *C. Drooge* or *Cape Nassau* of Jefferys, 1781; *C. Nassau* or *Dry Cape* of Jefferys, 1795; *Cabo Nassão* of Codazzi, 1840; *C. Nassau* (*Pomerun point*) of Brit. Admiralty chart No. 1801. Roggeveen, writing in 1675. (First part of the Burning Fen, etc., p. 5.) says: "Soo drae men dese *Branthoeck* (a mud bank off the coast) gepasseert is soo komt men by *Cabo Droge*, ofte *Nieuwen-hoeck*, anders genaemt *Cabo Nassauw*, den is men noch ontrent, 2 mijlen van de inkomste van de Rivier Nieu Zeelant." Thus it appears that the *Pomeroon* was sometimes known as the *New Zeeland* river.

[2] Reisen. 8°, Leipzig, 1848, Vol. II, p. 412.

emmost of the three estates above mentioned, and about 30 miles from the mouth of the Pomeroon. Abreast these plantations some maps show an unnamed island, about 7 miles SSE. from which, and near shore, is another called *Bird*[1] island. These are omitted from recent charts, but near the supposed location of Bird island is *Cozier*, or *Bird Island* point. It looks as though the mouth of the Pomeroon, as well as the mouths of other streams along this coast, had been slowly traveling northwestward by reason of the sediment at their mouths being gradually carried up the coast by the prevailing northwesterly current.[2]

Near its mouth the Pomeroon receives on its western bank a stream called *Wacupo*.[3] Through this stream and an itabo one may pass in the rainy season into the Manwarini and thence into the Morooca.[4] Im Thurn says:

> It (the Moruka) is connected, through the *Manawarin* creek, an itabbo across the *Wokapoa* lake and the *Wokapoa* creek, with the Pomerun.[5]

At the mouth of the *Wacupo* creek, on the northwestern bank, some maps locate a post.[6] About 5 miles above *Wacupo* the Pomeroon receives, also on its western bank, another

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[1] *Ile des oiseaux* of Bouchenroeder, 1798.

[2] Timehri. 12°, Georgetown, 1883, Vol. II, p. 216.

[3] *Waca Bary* of Roggeveen, 1675; *Wacabari* of Thompson, 1783; *Wokapoa* of Dixon, 1895. Perhaps this is the *Waquepo* (also written *Wacquepo*) of Storm van 's Gravesande's sketch of 1749 in Blue Book, Venezuela (1896), No. 1, Appendix III, map 5. *Wacquepo* of same, map 9; *Wakapoe* of Bouchenroeder, 1798.

[4] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 442.

[5] Proc. Royal Geogr. Soc., Vol. XIV, p. 680.

[6] Schomburgk's official map in Blue Book, Venezuela (1896), No. 5; Great colonial map; Jour. Royal Geogr. Soc., Vol. XII, map at end; map in Schomburgk's Raleigh; Hebert map, etc. See also Bouchenroeder's map.

stream which we write *Akawaini*.[1] Of this stream we know nothing but the name, and very little about that. Bouchenroeder makes the stream about 10 miles long. Fourteen miles from the Pomeroon mouth Richard Schomburgk shows a creek on the south bank called *Suriby*.[2] This is *Soerybie*[3] creek of Bouchenroeder, who makes its mouth 36 miles from the Pomeroon mouth. It appears to be identical with *Dutchman's* creek of Schomburgk. Some 6 or 7 miles farther up Richard Schomburgk shows another tributary, also on the southern bank, called *Harly-piak*[4]—the *Harly pyacke* of Roggeveen, 1675. This, in recent maps, is called *Tapakuma* river, at whose mouth is *Hill Mission*, upon or near the site of which Roggeveen's chart of 1675 shows a house labeled "*'t Huys der Hooghte.*" Bouchenroeder, 1798, shows this house, called "*la Maison ter Hooge*," and near it an "*ancien Poste.*" Netscher's map of 1887 calls it "*Huis ter Hooge.*" Sir Robert Schomburgk's official map shows a settlement here which he calls "*Mr. Pickersgill's*," while his brother's map a few years later calls it simply "*Mission.*" This *Harly pyacke* creek of Roggeveen in 1675, which through a variety of contortions

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[1] This name presents a delightful variety of form. We have not found it anywhere written twice alike. It is *Cenacyny* of Roggeveen, 1675; *Eguene* of Schomburgk in Jour. Royal Geogr. Soc., Vol. XII, map at end; *Aikowini* of Schomburgk's official map; *Aikoni* of Richard Schomburgk; *Akawinni* of the Great colonial map; *Ikioni* of Chollet; *Akawaini* of Brown and Sawkins; *Akioni* of Bouchenroeder; *Acarini* of Venezuelan map, 1896.

[2] *Suryby* of Roggeveen, 1675.

[3] *Soerybie* of the map, but *Soebyrie* of the inset.

[4] *Harly Pyaks* of Bouchenroeder, 1798; *Arapiakru* of Im Thurn: Proc. Royal Geogr. Soc., Vol. XIV, p. 680; *Arapiaku* of Great colonial map; *Ariapaco* of Schomburgk: Jour. Royal. Geogr. Soc., Vol. XII, map; *Ariapako* of Schomburgk's official map; *Aripiaka* of Venezuelan map of 1896; *Arapiacro* of Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 415.

has become *Arapiakru* of Im Thurn in 1892, will be here regarded as a tributary of the Pomeroon, as originally depicted, while the Tapakuma, joining it on the eastern bank a few miles above its mouth, will be regarded as its tributary. It appears clear that the name *Harly-piak* is erroneously placed on Richard Schomburgk's map.

The name *Tapakuma*, applied to the lake and river, appears to have been first used by the Schomburgks, who wrote it *Tapacuma* and *Tapacoma*. Brown and Sawkins write it *Tapacooma*. The lake, which abounds with fish, drains naturally through the Tapakuma and Pomeroon rivers to the sea.

Of it Brown and Sawkins say:[1]

This lake is naturally a swamp or savanna, which would be almost dry during a great portion of the year, were it not that the water is now retained in it artificially by the dam at the head of the *Tapacooma* river, which is its natural outlet. At this dam just mentioned there are a few low hills to the north and south, composed of a grayish sand deposit.

It is 3 or 4 miles in extent, abounds in aquatic plants, and is the home of numerous water fowl. It is separated from the ocean by a "low ridge of fine white sand * * * about 15 feet in height and some 300 yards in width, trending north and south."[2] From this ridge to the seacoast is alluvium. Back of the ridge a swamp extends to the borders of Tapakuma lake. *Richmond Lock* appears to be cut through this sand bank or "sand reef," as it is locally called. Tapakuma river, as here used, has low banks, "only a few inches above ordi-

[1] Reports on the geology of Brit. Guiana. 8°, London, 1875, pp. 33–34.
[2] Reports on the geology of Brit. Guiana. 8°, London, 1895, p. 33.

nary high tide and composed of yellowish, clayey alluvium;" is about 10 miles long, has several small tributaries, and is at its junction with the Harly-piak 100 feet wide, the Pomeroon being here 160 feet wide.[1] The influence of the tide here is strong, the water rising 8 feet; indeed, at spring tide it is said to rise as much as 12 feet, yet its taste is not salty. Both above and below this Richard Schomburgk in 1843 noted evidences of former cultivation.

Less than a day's journey from the *Harly-piak* mouth up the Pomeroon one reaches the mouth of the *Ka-arimapo*, which here joins the Pomeroon on its southern bank.[2] It is at its mouth 100 feet wide and quite deep. It flows between low banks, and a "few miles" from the mouth receives on its western bank the *Kuamuta*, a little stream winding through thick forest. A short distance from the bank of this stream, and on a little hillock, is *Kuamuta*, a neat and cleanly native village composed of seven houses, of which three had a second story reached by a ladder from the outside.[2] The bamboo, called by the natives *kuamuta*, here grows to an enormous size. The tidal influence is felt strongly in the *Ka-arimapo*.[3] Between the mouths of the Harly-piak and Ka-arimapo on the south bank of the Pomeroon is *Maccassema*[4] of the Great colonial map. Here "are hills of not more than 20 feet in height above the level of the river, composed of clayey material, with a few small, partially decomposed rocks."[5]

[1] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 415.
[2] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 416.
[3] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 422.
[4] *Maccascema* of Brown and Sawkins, p. 33, and *Makasema* of Dixon.
[5] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 34.

From Makasema upward we have two sketches of the upper Pomeroon—one by Richard Schomburgk, who spent some weeks here in 1843, the other apparently due to the reconnoissance by Sawkins in 1868. These sketches differ so much that a detailed description seems unnecessary. Sawkins, it will be remembered, crossed over on foot from *Anaparie* village on the upper Waini to the *Makasema* on the Pomeroon in six days, in April, 1868. He reached the Pomeroon by way of the Sururu and its affluent, the *Imanicurru.* The *Sururu,*[1] flowing into the Pomeroon "from the west," is, at its junction, as wide as the Pomeroon. "Some miles above," the Pomeroon receives on its west bank the waters of the *Makaiku.* Here the Pomeroon has lost "much of its former breadth, the vegetation is denser, and the tidal influence has wholly vanished," although, says Schomburgk, the place is, as the crow flies, "not more than 10 geographic miles from the Pomeroon's mouth." Ten miles above the Makaiku is the *Arraia,* another small tributary, from the west, of the Pomeroon. A native village, also called *Arraia,* near the stream, is in the woods on a little elevation about a mile from the Pomeroon. This village of 5 huts and 50 people was, in 1843, and perhaps is, the last[2] one up the Pomeroon, or such it was said to be by Richard Schomburgk, who spent some days here in his botanizing work.

Upon leaving *Arraia,* Schomburgk attempted to reach the

[1]So written by Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 424; *Schururi* of Brown and Sawkins, p. 33, and *Schiruru* of their map; *Shiruru* of the Great colonial map.

[2]Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 426.

source of the Pomeroon. After picturing with much vividness the tortuous and ever narrowing stream, in the thick forest where fallen timber, trailing vines, and a current of increasing strength opposed the explorers' advance with ever increasing force, he says:

> The difficulties at last became so great that they could not be overcome with my little remaining strength, and I found myself compelled to abandon my purpose of following the Pomeroon to its source, although this could not now be very far off. The Sierra Imataca in any event (jedenfalls) is the region where the Pomeroon rises; and several ridges of mountains, for which, however, the Indians had no names, seem to me from all appearances to be spurs (ausläufer) of this chain. The source must be in about latitude 6° 48′ N.[1]

Writing in 1883, Im Thurn says the source of the Pomeroon "has never been visited,"[2] and in general as to the rivers of the Barima region or Northwest District he writes:

> All the main rivers rise on the Atlantic side of the Sierra Imataka range of mountains, which runs, roughly speaking, parallel to, and at no great distance from, the ocean. Their courses are therefore short, and singularly similar. All, with the exception of the Morooka, which seems simply to consist of the drainage of certain marshy savannahs, and with the possible exception of the Pomeroon, for this possibly though not probably, also takes its rise in a savannah, run down from the actual slopes of the Sierra Imataka. The upper courses of all, again with the exception of the Morooka and possibly of the Pomeroon, are obstructed by one or more "falls," or rather cataracts, of greater or less magnitude, caused by the cropping up of the one or more belts of granite which run across the country at right angles to, and cutting, the courses of the rivers.[3]

[1] Richard Schomburgk: Reisen. 8°, Leipzig, 1848, Vol. II, p. 438.
[2] Timehri. 12°, Georgetown, 1883, Vol. II, p. 213.
[3] Timehri. 12°, Georgetown, 1883, Vol. II, p. 217.

THE CUYUNI[1] RIVER.

According to the best information now available, this river is 315[2] miles long. Save for a few miles near its mouth it is throughout its known course impeded by numerous islands, rapids, and cataracts. We say *known* course, as the latest and best maps and reports indicate that exploration has been carried up only 265 miles from the mouth; the remaining 65 miles, as shown on maps, appears to be due to conjecture or Indian reports.

Rising in "high mountains according to Indian information" in about

Lat. 5° 50′ N.,
Long. 61° 50′ W. Gr.,

it flows northeasterly, then easterly, then southeasterly, and finally, with a generally easterly course, discharges its whitish waters into the darker waters of the Mazaruni about four[3] miles above the junction of the latter stream with the Essequibo. Its mouth is in

Lat. 6° 23′ N.,
Long. 58° 42′ W. Gr.,

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[1]This name *Cuyuni* or *Cuyu-wini* (which it would be better to write *Kuyuni*, as modern writers have begun to do) is derived from the Macusi word *cuyu*—the white-headed maroudi (*Penelope pipile*), and *wini* or *uni*-water. [See Timehri, June, 1893, pp. 82–83, and Schomburgk's Reisen Vol. III, pp. 745–746]. It has been variously written: *Cojawiny*, by De Bry in 1599; *Coowini*, by Bruzen la Martiniere, 1737; *Cajona*, by D'Anville, 1748; *Cajouny*, by Storm van 's Gravesande, 1749; *Casona*, by Bellin, 1763; *Cayuni*, by Surville, 1778; *Cayuni* or *Cooioony* and *Coioony*, by Hilhouse, 1832; *Cuyuni* or *Cudurini*, by Humboldt; *Kuyuni*, by Dixon and recent writers, etc.

[2]Three hundred according to Indian report: Jour. Royal Geogr. Soc., Vol. VI, p. 225.

[3]*Eight* according to Robert Schomburgk: Description of British Guiana. 8°, London, 1840, p. 13.

The southernmost point on the river is found at its source latitude 5° 50′ N. It northernmost extension is in latitud 6° 58′ N., a few miles west of the mouth of Acarabisi creek Thus it extends through, approximately, one degree of latitud and three degrees of longitude. Throughout most, if not al of its course it is hemmed in by a dense tropical forest. In a its lower course these forests extend many miles back from eac bank, but in its upper and less known course the open savan nas approach nearer its banks, which they reach at som points.[1]

The volume of water carried by the river fluctuates greatly During the rainy seasons it is a deep, swift river with over flowed banks. At such tiines there are numerous rapids dow which canoes may safely pass. At low stages, however, th number of rapids and falls around which portage must b made, whether going up or down stream, is much increased

The geologist Brown says:[2]

Where the river flows smoothly it is deep, and if without large island is in one broad channel; but where its passage is obstructed by bars o rock, forming rapids or cataracts, it widens out amongst rocks, rock inlets, and shallows, to an immense width. Of the various channel into which it then splits there is always one large or main one, and thi is the one usually followed by the boatmen when the river is low. O the other hand, when it is in flood, the smaller channels are sough These channels are usually full of pointed rocks, some above, and som just beneath the surface, so that it requires great skill on the part o the steersman to evade them.

[1] Venezuelan Documents, Vol. III, p. 230.

[2] Brown (C. B.), Canoe and Camp Life in British Guiana, 2d ed., 8°, London, 187 p. 9.

And at page 10, he adds:

The scenery on the river is pretty, but no views of any extent are disclosed. The chief features observable are intervals of comparatively still water lying between large, low, irregularly-shaped rocky areas, cut up by wide channels of foaming water, where the river rushes over granite or gneiss obstructions. Each level patch is higher than the last by a few inches when a rapid intervenes, and by two or three feet where a cataract occurs.

The earliest map seen, showing this river, except a few miles of its lower course, is D'Anville's South America, of 1748, upon which it is called the *Cajona.* The name, however, *Coovvini* is given by De Bry, page 94, and on his map as *Cojony;* these names appear to be derived from Lawrence Keymis, a companion of Raleigh in 1595–96.

Itinerary.—We now proceed to a more detailed description of the *Cuyuni* river, beginning at its mouth, about one mile wide, where its whitish waters mingle with the darker waters of the Mazaruni, and together flow about eight miles northeasterly to the Essequibo. The temperature of the (white) Cuyuni water was found by Schomburgk, September 25, 1835, to be 83° F.; that of the (black) Mazaruni, 84° F.[1] The division of the waters is clearly marked by the color. Between the mouths of the Cuyuni and Mazaruni, at their junction, is a point of land called *Cartabo* point. As to this, Schomburgk, writing in 1835, says:[2]

Cartabo Point, at the confluence of the Cuyuny and Massaroony, was once the seat of government when this country was first settled by the

[1] Jour. Royal Geogr. Soc., Vol. VI, p. 237.
[2] Jour. Royal Geogr. Soc., Vol. VI, p. 226.

Dutch at the close of the sixteenth century, and which a few years later was removed to Fort Island. On the island *Kyk-over-all*, immediately opposite, was a fort for its protection, now in ruins.

Hartsinck,[1] however, writing in 1770, says that "Cartabo was a village of 12 to 15 houses, now in ruins," situated on the *west* (it should rather be *north*) bank of the Cuyuni, and his map agrees with his statement. Upon his map the word *Bartica* occurs where modern maps put *Cartabo* point.[2]

In the Mazaruni, and opposite the confluence of the Cuyuni and Mazaruni, is the small island Kyk-oe'r-all, where the Dutch, says Schomburgk,[3] "in former times erected a fort against the incursions of the Spaniards." On this island, now usually written *Kykoveral*, and which may be freely translated as *Overlook*, was a fort of cut stone.[4] It commanded a fine view of the three great rivers, Essequibo, Cuyuni, and Mazaruni,[5] and from this fact derived its name. Schomburgk's undated official map of 1841 or 1842 shows both the fort Kykoveral and the Cartabo settlement as in ruins.[6] On the Mazaruni side of the point the Great colonial map shows a village called *Ororabo*. Nearly opposite Cartabo point, *Suger*[7] creek debouches on the north bank of the Cuyuni.

From the mouth of the Cuyuni to the first fall, called *Akayu*,[8]

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[1] Beschryving van Guiana. 4°, Amsterdam, 1770, Vol. I, pp. 255, 262–263.

[2] For a critical study of the history and location of Cartabo, see Prof. Burr's paper in Volume I.

[3] Description of British Guiana. 8°, London, 1840, p. 13.

[4] Hartsinck: Vol. I, p. 262.

[5] Jour. Royal Geogr. Soc., Vol. VI, p. 225; also Hartsinck, Vol. I, p. 262.

[6] See picture in Burr's report in Volume I.

[7] *Suyker* kreek of Hartsinck; Vol. I, map facing p. 255. *Zuiker* creek, of Hobbs' chart.

[8] *Akaya* of Blue Book, Venezuela (1896), No. 5, p. 19; also written *Akaiou* and *Akajou*; *Acayu* of Richard Schomburgk; *Akawai* of Brown and Sawkins' map; *Accais* of Perkins: Timehri, 1893, p. 75; *Accawai*, of the Great colonial map; *Acäyu* of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 447.

is, according to Schomburgk's map, 8 miles. In this reach are the *Batavian*[1] islands, two in number, known as *Batavia* and *Great Batavia.* Hereabouts the high banks are composed of loam. On Schomburgk's map of 1836,[2] a Carib village, *Kay-tan,* appears on the north bank; it is omitted from later maps. A little to the west of this and on the south bank a silver mine is indicated, where it is reported the Dutch in 1721[3] found a little silver ore, but not enough to pay for working.[4]

Beginning with *Akayu* fall the river widens and is much impeded by islands, rapids, and cataracts for 8 miles. In this stretch Schomburgk enumerates 5 cataracts and rapids, as follows, going upstream: *Acayu* cataract; *Saregatava*[5] cataract; *Turrung*[6] rapid; *Ematuba*[7] great cataract around which is a portage; *Arcabusa*[8] cataract, and lastly *Camaria*[9] cataract. The whole series is sometimes called the *Camaria* rapids. It is a dangerous part of the river. Schomburgk on July 26,

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[1]The larger appears also to be called *Creoolen* (Hartsinck, Vol. I, p. 264) and *Arawasi* (Schomburgk's map in Blue Book, Venezuela (1896), No. 3). On the Great colonial map they are called *Arawasi*, and the name Batavia (misspelled *Bataria*) is applied to other islands farther up stream.

[2]Jour. Royal Geogr. Soc., Vol. VI, p. 282.

[3]This date is erroneous; it should be 1740 or 1741.

[4]Jour. Royal Geogr. Soc., Vol. VI, p. 225.

[5] *Seregatara* of the Great colonial map; *Saregataara* of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[6]In place of this the Great colonial map gives three cataracts as follows: *Coomlamana, Matope, Tirarune,* which appear on Brown and Sawkins' map as *Coomtamama, Ma?ope, Tiraruno; Twarúng* of Hilhouse, Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[7]"*Ematubba,* generally called the *great fall,*" Sch., Blue Book, Venezuela (1896), No. 5, p. 19. *Emataba* of the Great colonial map. This word is not a *name* of the cataract. It is the native name for portage.

[8] *Aracasa,* of the Great colonial map; *Arcaboosa* of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[9]*Camareea* of Hilhouse: Jour. Royal Geogr. Soc., Vol, VII, p. 447.

1841, came near losing his life here, and from time to time acci dents occur by which travelers are drowned. Small hill appear on either bank at Akayu fall, which on the Great colo nial map are shown as a low range parallel to the Essequibo

From Camaria cataract at the head of Camaria rapids th course of the river is northwesterly to the foot of *Sucaraim* island, 12 miles. It is, in this stretch, nearly straight, fre from falls and rapids, and contains a single unnamed islan off the mouth of *Woka*[1] river, a small stream debouching o the western or southern bank. About 4 miles farther up i receives from the northern bank another small stream calle by Schomburgk *Oerabisi*[2] river, and which he indicates a a part of the boundary line between Venezuela and Britis Guiana, as claimed by Venezuela. It does not appear o the Great colonial map. Just north of Woka river, on th southern bank of the Cuyuni, is *Woka* or *Powis* hill, 37 feet high.[3] It is a ridge extending WNW. to ESE., and i visible from the junction of the Cuyuni and Mazaruni. Th geologist Sawkins, who in 1868 climbed this hill, which h calls *Woko* or *Poucis*,[4] reports the scenery as "very tame an unpicturesque."[5]

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[1] This may be the *Carioni* river of Surville's map of 1778.

[2] *Oerabisce* of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[3] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 187 p. 22.

[4] *Powis* is the Macusi word for the large game bird known as the curassow (*Cra alector*); see Im Thurn (E. F.) Among the Indians of Guiana. 8°, London, 188 p. 119. The savanna species (*Crax tomentosa*), called by the Indians *Pauituima*, i often referred to by the Schomburgks as the Hokko or Hocko-huhn. Richar Schomburgk: Reisen, Vol. II, pp. 18, 31, 503; Vol. III, p. 746. Perhaps *Woka* or *Wok* should be *Hoko*. It is *Woka* or *Powis* of Robt. Schomburgk: Blue Book, Venezuel (1896), No. 5, p. 19, and *Wókah* or the *Powis* mountain of Hilhouse: Jour. Royal Geogr Soc., Vol. VII, p. 447.

[5] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 187 p. 41.

Suwaraima[1] island, eleven miles long, with a maximum width of two miles, divides the Cuyuni into two parts or channels, of which the southwestern is the principal one. The northern one bears on Schomburgk's map the legend "Large falls, not passable for canoes." Of the southern channel the lower half, as shown, is much impeded by islets and rapids. Near the south end of Suwaraima island is a cataract around which the native boats, called *corials*, are hauled. On his map Schomburgk calls this "Cat. *Aruaka Ematuba* (Portage)" and in his text "*Aruaka-matubba.*"[2] Hilhouse calls it the *Suwaraima* fall.[3] The total fall of the river along the southern side of Suwaraima island was estimated by Hilhouse to be 30 feet. He refers to another fall above it, which he calls *Acareewa*, and which is not shown on the maps, unless perchance it is identical with *Aruaka.* This series of rapids, says Schomburgk, is "caused by a small range of mountains through which the river has broken itself a passage."[4] The rock here is intrusive hornblende associated with granite. The surface is of gravel loosely cemented with clay, and appears to have come from the Tapori hills, a few miles above. The *Tapori* and *Simiri* hills, called mountains by Schomburgk, on the south bank have been worked for gold

[1]Perhaps this is the island called *Parombo* in the journal of the Dutch mining engineer Hildebrand, 1741.

[2]Blue Book, Venezuela (1896), No. 5, p. 19. The Great colonial map calls this "Cat. of *Aruakamuatuba,*" and Brown and Sawkins' geological map "*Aruakmatope* Cat. (Portage)," and text p. 41, *Aruakaumatabo.* The map in Jour. Royal Geogr. Soc., Vol. XII, at end, calls it "*Aruka Ematuba.*" Ematúbbah means a "portage or fall that can not be passed without unloading," Hilhouse: Jour. Royal Geog. Soc., Vol. VII, p. 447.

[3]Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[4]Blue Book, Venezuela (1896), No. 5., p. 19.

by the *British Guiana Gold Mining Company*, which erected a small stamp mill here prior to 1868.[1] The Great colonial map has the words "Gold Fields" in this locality. The *Tapori* hills are stated to be about 350 feet high and extend back from the river as low hills. "Four hills" along the river are referred to as being part of the Tapori range.

From the head of Suwaraima island to the *Tonoma* rapids the course of the river is nearly north, distance 7 miles. The river here is about a mile wide, contains several islands, and from its eastern bank receives the small stream called *Berebesi*[2] river. In this reach and for nearly 20 miles farther upstream both banks are low and, as everywhere, covered with dense forest. The river bed is hereabout of granite and syenite. *Tonoma rapids* and *cataract* occur at a sharp bend of the river much obstructed by islets. On Schomburgk's official map it is called a rapid, in his text a cataract. Brown and Sawkins use the term *rapids*.[3] On one of the islets here Schomburgk shows an Indian settlement, and adds the words, "*Site of an old Dutch post.*" In his text he says this is the place "where the post-holder resided after his station had been withdrawn from *Tokoro* Island."[4] From here to the mouth of the river is 48 miles. About five miles above Tonoma[5] are *Payuca* rapids of Schomburgk. Brown and Sawkins' map calls it a cataract, while in the text[6] Sawkins says granite and syenite

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[1] Brown and Sawkins: Reports on the geology of Brit. Guiana. 8°, London, 1875, p. 41.

[2] Beribece *river* of Brown and Sawkins' map, and Berebisi *creek* of the text, p. 42.

[3] Reports, p. 42.

[4] Blue Book, Venezuela (1896), No. 5, p. 19.

[5] *Tonomah* of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 447.

[6] Reports, p. 42.

appear at *Payuca* rapids. The elevation of the river at this place is, according to Hilhouse, 200 feet.[1] Between Tonoma and Payuca rapids the river makes a large bend.

From Payuca to the mouth of the Cutuau river is 13 miles. The Cuyuni here has a nearly straight course about WNW., has several islets, and a mile or two below the mouth of the Cutuau, a small unnamed rapid. In this reach, which has low banks, is free of impediments, 600 to 700 yards wide, and has clear water of a brownish color,[2] it receives four tributaries, one from the south, the *Wayarimpo*,[3] and three from the north, *Anakupai*, *Quivekuru*,[4] and *Yanekuru*. These names are from Schomburgk's map. The *Wayarimpo* is called by Schomburgk a rivulet, and he adds that along it a path leads to the *Puruni* river. At its mouth he observed the latitude to be 6° 43′ N. The path to the Puruni runs somewhat west of south, and its length is 35 to 40 miles. Of the three northern tributaries we have nothing but their names as Schomburgk gathered them from the natives. The mouths of the small tributaries are usually so hidden by the forest covering as to escape notice by the untrained eye, and perhaps these form no exception to the rule.

The *Cutuau*[5] appears to be the longest and most important tributary of the lower Cuyuni. Its length, according to

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[1] Jour. Royal Geogr. Soc., Vol. VII, p. 448.

[2] Blue Book, Venezuela (1896), No. 5, p. 19.

[3] Perhaps this river is *Gocamiri* of Surville's map of 1778, or perhaps *Aruria* of same map.

[4] *Quire-Kura* and *Yane-Kura* of Sawkins, p. 42, and on his map *Quirecuru* and *Yanecuru*.

[5] *Kutuau* of Dixon; *Saramu* creek of Hilhouse, and perhaps *Soma* river of Surville, 1778; also called *Caruma* or *Catuau* creek by Sawkins, p. 42, and on his map, *Cutua*.

Schomburgk, is about 25 miles, and its course a little east of south. Schomburgk shows hills along its western bank which he, on his map, calls "*Cutuau Wopuru Mts.*," and in his text "*Cutua hills.*"[1] This river, he adds, "offers a communication with the River Waini, and is much frequented by the Indians of both rivers." On his map in the Journal of the Royal Geographical Society, Vol. XII, only the mouth of the stream appears, but on the official map, Blue Book, No. 5, the whole river is sketched, perhaps from Indian reports. This appears to be the stream which Hilhouse[2] calls *Saramu* creek, where, he says, "the path sets off to Pomeroon and Wayeena rivers, and is the same that was traversed by Gullifer and Smith in 1820. It is computed at five days' journey to the Wayeena by the Indians, equal to seven or eight of an European." In its upper part it receives from the east a tributary called *Pairaua.*

From the mouth of *Cutuau* river to the *Toropuru* hills on the southern bank is 22 miles. In this stretch the river forms a circular arc nearly a quadrant in extent, running first south, then bending slowly around to west. Low hills appear on either bank. The river is studded with many islands, impeded by numerous rapids, and dammed by the "great and dangerous" fall *Wakupang.*[3] This fall is the beginning, as one

[1] Blue Book, Venezuela (1896), No. 5, p. 19.

[2] Jour. Royal Geogr. Soc., Vol. VII, p. 448.

[3] *Wakupang* or *Acuiwangh* cataract of Schomburgk's map and *Wakupang* of his text, Blue Book, Venezuela (1896), No. 5, p. 19. His brother Richard writes it *Wackupang*: Reisen, Vol. I, p. 268. Hilhouse, who was here in March, 1837, calls it *Acueywangh* fall; Jour. Royal Geogr. Soc., Vol. VII, p. 448. *Wakupang* of Brown and Sawkins' Reports, p. 43, but *Hackupang* and *Wackupang* of their map.

descends the river, of a "series of falls and rapids"[1] which, continuing 14 miles, terminates at *Otupikai* island, a little above the mouth of the *Cutuau* river. In this stretch Hilhouse,[2] ascending the river, enumerates "*Warara* rapid; *Watoopegay* rapid, small but very long; *Totowou* creek, N. bank; *Watoopegay*; *Copang* creek, N. bank; *Bayuma* creek, S. bank," where the river is clear of islands and 150 yards wide; "*Waycourny* fall, long and difficult; rocks like the slag of a glass house;" then the river clear of islands, and lastly *Acueywaugh* fall, which by his estimate is 220 feet above sea level.

Otupikai[3] island trends north and south and is two miles long according to Schomburgk, who shows rapids on each side of it. The western one he calls *Otupikai*, the eastern one *Curatokoa*[4] or *Warara-aburupuy*. Greenstone and talcose schist occur at these rapids. Near the head of *Otupikai* island Schomburgk locates an Indian village on the western bank. Two miles above Otupikai is the mouth of *Copang*[5] river on the north bank. Hilhouse's itinerary would indicate a distance much greater, perhaps 10 or 12 miles. Sawkins ascended the *Copang*, which he calls a creek, a short distance till stopped by fallen trees, in search of a native settlement from which to purchase supplies, and remarks that "No person was found at the house." Between Otupikai island and Copang creek are the *Atete* rapids of Sawkins, where the rocks are greenish

[1] Blue Book, Venezuela (1896), No. 5, p. 19.
[2] Jour. Royal Geogr. Soc., Vol. VII, p. 448.
[3] *Olupikai* of Brown and Sawkins: Reports, p. 42, and *Otupakai* of their map.
[4] Presumably *Warara* rapid of Hilhouse.
[5] The Cruz Cano map of 1775 has a stream in this vicinity called "R. *Copan*."

colored and of slaty texture.[1] These are not shown on any map examined. Perhaps they are identical with *Watoopegay* of Hillhouse. *Totouou* creek of Hillhouse has not been found on any map.

A few miles above the Copang, three tributaries, according to Schomburgk, come in on the southern bank. These are *Tupurukena*,[2] *Wamapatti*,[3] and *Manaripara*.[4] Between the first and second of these streams the Great colonial map shows a native village called *Weyumou*.[5] The last named receives from the west a small tributary called *Waicurie*[6] on the Great colonial map. Just west of this, on the south bank of the Cuyuni, are the *Waikura* hills, just opposite which, on the north bank, are the *Pararapu* hills. From a point some miles down the river one of these can be seen as "a long, low hill." Hereabout is a "long and difficult" fall, not shown or mentioned by Schomburgk, bearing the same name—*Waikura*. Sawkins calls it *Waicuri* cataract and says there is here "a great development of brecciated rock lying on a phonolite, with small grains of pyrites and a blackish mineral that, like the pyrites, dissolves out of the rock, leaving square cavities, more or less filled with oxide of iron." Hillhouse says:[7]

The water here is quite black and transparent—hitherto it has been alternately dark and clear—and white and muddy—as it passed

[1] Brown and Sawkins: Reports, p. 42.

[2] *Tupurakena* of Brown and Sawkins' map.

[3] *Wamapate* of Brown and Sawkins' map.

[4] *Manoripara* (?) of Brown and Sawkins' map.

[5] *Weymuou* of Brown and Sawkins' map.

[6] *Waycourny* of Hillhouse, Jour. Royal Geogr. Soc., Vol. VII, p. 448; *Waicuri* of Brown and Sawkins' text; *Waikuie* of their map. The Great colonial map has *Waikure* mountains and *Waicurie* river.

[7] Jour. Royal Geogr. Soc., Vol. VII, p. 448.

through rocky or clayey banks; so that the epithet of a *white* river to the Cuyuny is inapplicable—from this point upwards all being a dark water.

On the south bank, at or near *Waikura* fall, Schomburgk locates an Indian village. Five miles farther up, and also on the southern bank, is another (Carib) village, near which is *Carapa*[1] island, just below the great cataract, Wakupang. The hills near these falls on the river's south bank bear the same name—*Wakupang*[2]—and, according to Schomburgk, are about 300 feet high.

From *Wakupang* cataract to *Tokoro* island is 20 miles. For three miles the course is nearly due west, then at the *Toroparu* hills, about 350 feet high, according to Schomburgk, it turns abruptly to the north, keeps a general course a little west of north for 10 miles, and then swings round to west and southwest seven miles farther to *Tokoro* island. In the north and south reach of this section Schomburgk shows two small groups of islands, while the curving part extending 7 miles down from Tokoro is much impeded by numerous islets. About 5 miles above *Toroparu* river is the *Acha*[3] rapid of Hilhouse, not shown or mentioned by Schomburgk. The river in the curving 7-mile reach above mentioned is reported by Hilhouse to be 250 yards wide, very shallow, with islands here and there, and full of small rapids.[3] Between *Wakupang* fall and *Tokoro* island the river receives, according to Schomburgk, three tributaries from its southern or right bank, and four from its

[1] *Carapa-paou* of Schomburgk's map. I. Carapou (paou) of Great colonial map.
[2] *Wackupano* Mts of the Great colonial map.
[3] Jour. Royal Geogr. Soc., Vol. VII, p. 449.

northern or left bank. Those on the southern bank are *Toroparu*,[1] *Wariparu*,[2] and *Anarabisi;* on the northern bank, *Ipuru*,[3] *Appa*,[4] *Rupa*, and *Iroma*.

In his text Schomburgk calls the *Toroparu*[5] "a rivulet from whence a much-frequented path leads, in a day, to the *Purumi*." Perhaps he took this from Hilhouse, who calls it *Toropaaru* creek, "from which is the communication with the *Punoony* creek in the Massaroony—Smith and Gullifer's route in 1820."[6] The Great colonial map does not show this path, but does show that the distance at this point from the Cuyuni to the Cartuni, one of the tributaries of the Puruni, is about 15 miles. Sawkins, who was here in 1868, says: "We found that the path to the *Puruni* river, which is laid down on the map of Sir R. Schomburgk, had been long abandoned."[7] Schomburgk calls the Iroma a rivulet.[8] The *Toroparu* mountains of Schomburgk's map, "about 350 feet high," are in his text called the Toro hills.[8] Of the rivers *Rupa* and *Appa*, he says they were "the largest tributaries we had met with in the course of our descent." They appear, on all maps seen, in the most general form, as mere sketches of unvisited streams.

Tokoro island lies just a little above the mouth of the *Iroma* and eight miles below the mouth of the Arakuna. Abreast of

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[1] *Toropaaru* creek of Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p.449.

[2] Probably the *Arapeera* of Hilhouse: Jour. Royal Geogr. Soc , Vol.VII, p. 449.

[3] *Ipura* of Brown and Sawkins' map.

[4] *Appapara* of Brown and Sawkins' map; *Ippapara* of the Great colonial map; and *Apapara* of Dixon's map.

[5] Blue Book, Venezuela (1896), No. 5, p. 19, and Reisen, Vol. I, p. 268.

[6] Jour. Royal Geogr. Soc., Vol. VII, p. 449.

[7] Brown and Sawkins: Reports, p. 43.

[8] Blue Book, Venezuela (1896), No. 5, p 19.

it on the south bank are some low unnamed hills. On his map Schomburgk has "*Tokoropatti*, site of Dutch post," and in his text he speaks of "Island *Tokoro* (Tokoro-patti), where, toward the close of the last century, the furthest outpost of the Dutch was situated."[1] Schomburgk was here in July, 1841. Hilhouse, who was here four years before, viz, March 25, 1837, refers to it and says, "*Tocro* island, where a white man, most likely a smuggler, is reported to have resided some years here."[2] Richard Schomburgk calls the island *Tokoro* or *Tokoro-Patti*.[3]

From Tokoro island the course of the river is nearly due west for 6 miles, in which space is a group of islets, and the tributary *Marupa*[4] comes in on the north bank. It appears to be unknown beyond its mouth.

About a mile beyond the bend above mentioned, and near the mouth of the "rivulet" *Arakuna*,[5] begin a series of rapids, which continue almost without interruption for 20 miles. The river here runs "through black granite with detached upright masses with round tops, on which grow stunted bushes."[6] Its course is shaped like a long letter S. From the beginning of these rapids at Schomburgk's *Yamemure* cataract downstream to *Aricari* rapids of Schomburgk is 20 miles. The elevation of the river at the head of these rapids was estimated by Hilhouse

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[1]Blue Book, Venezuela (1896), No. 5, p. 19.

[2]Jour. Royal Geogr. Soc., Vol. VII, p. 449.

[3]Reisen, Vol. I, p. 268.

[4] *Maripa* of Schomburgk's map in Jour. Royal Geogr. Soc., Vol. XII.

[5]So spelled by Schomburgk in text, p. 194, and on map in Jour. Royal Geogr. Soc., Vol. XII, but *Aracuna* in his official map, which has been copied by Im Thurn; the Great colonial map; et al.

[6]Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 449. See, also, geological map of Brown and Sawkins.

to be 300 feet. The total fall of the river in this 20-mile stretch was also estimated by him to be 80 feet, of which 30 feet occurs at the great cataract called the *Canoe Wrecker*,[1] about 15 miles from the head of the rapids. At the foot of the rapids is *Waseema* island of Hilhouse, not mentioned by Schomburgk. Near it is the first rapid or cataract of this series encountered in ascending the river, called by Schomburgk *Aricari*. A cataract apparently identical with this is on Brown and Sawkins' geological map, called *Quashima*,[2] which is doubtless the same as *Waseema* of Hilhouse. Just below this fall the Cuyuni receives on its northern or left bank a tributary, not shown or mentioned by Schomburgk, which is called *Sudamong* on the Great colonial map and *Haimaraparu* on Brown and Sawkins' geological map. The last-named map indicates a native settlement near its mouth, while Schomburgk locates an Indian village a little above and on the opposite bank of the Cuyuni. Three miles above the mouth of the Arakuna the Great colonial map shows a small tributary called *Cartoone* river. This is doubtless due to Sawkins,[3] who speaks of a "small creek called *Cartuni*, along the banks of which there is an Indian path to the Puruni river, a tributary of the Mazaruni," 10 miles distant. This stream is shown on the Great colonial map only. Also on that map, along the *Arakuna* river, are the words "a path leads to the R. Puruni," but no dotted line appears. Perhaps there is but one path. In his text Schomburgk speaks of the *Arakuna*[4]

[1] *Wohmaypongh*, or the "*Canoe Wrecker*," of Hilhouse, Jour. Royal Geogr. Soc., Vol. VII, p. 449; cataract of *Poinka-marka*, or *Wommipong*, of the Caribs, according to Schomburgk, Blue Book, Venezuela (1896), No. 5, p. 18.

[2] *Quashimi* of the Great colonial map.

[3] Brown and Sawkins: Reports, p. 43.

[4] So spelled in Jour. Royal Geogr. Soc., Vol. XII, p. 191, but *Aracuna* in Blue Book, Venezuela (1896), No. 5, p. 19.

hills in this vicinity as forming the lower end of a *second* series of falls and rapids extending upstream 50 or 60 miles to the "small range of hillocks" called *Macapa*, opposite the mouth of *Acarabisi* creek. In this 20 miles of foaming water, extending both above and below the *Canoe Wrecker*, are numerous rapids and cataracts bearing native names. For these names and locations three principal sources are available—Schomburgk, Sawkins, and the Great colonial map. The following table is made up from these maps:

Schomburgk's official map.	Brown and Sawkins' geological map.	Great colonial map.
Aricari rapid.....	Quashima[1] cataract	Quashimi cataract.
.....	.....	Paccu[2] cataract.
Duquari[3] cataract.....	Duqari cataract	Duquari cataract.
Dara cataract	Dara cataract	Dara cataract.
Callo cataract.....	Callo cataract.....	Calo cataract.
Great cataract Poinkamarca,[4] or Womuipong (Portage).	Poinka aremarica cataract	Pompkainarea, or Womuipong portage.
.....	Korokoropong[5] cataract..	Korokoropong cataract.
.....	Oropatoun cataract.....	Oropatoun cataract.
.....	Yackariwa cataract	Yackariwa cataract.
.....	Aberawiku[6] cataract	Aberiwiku cataract.
Maripa cataract	Maripa cataract	Maripa cataract.
Tumueng rapid.....	Tumeng cataract	Tumeng cataract.
Tshimapuna cataract	Shimaparu cataract.....	Tshimapuna cataract.
Poropa[7] cataract	Takine cataract	Takine cataract.
Takine cataract	Poropo cataract	Poropo cataract.
Yamemure cataract.....	Iamemure cataract	Yamemure cataract.

[1] *Waseema* of Hilhouse.

[2] Thus in text of Brown and Sawkins. Somewhere near here is *Goomeyrey* fall of Hilhouse. *Paeu* is the local name of the fish, *Myletes latus*, a fish "almost as high as long." Other fishes of this general shape are also called *Paeu*: Richard Schomburgk; Reisen. 8°, *Leipzig*, 1848, Vol. III, p. 638.

[3] Erroneously *Duquart* in Jour. Royal Geogr. Soc., Vol. VII, map.

[4] *Poinka-marka* of Schomburgk's text. *Womuipong* is the Carib name. Hilhouse spells it *Wohmuypongh*. This is the *Canoe Wrecker*, a name of obvious derivation.

[5] Spelled *Corrocoroopung* in text, p. 44.

[6] *Aberiwaika* of text, p. 44.

[7] *Poropa* is below *Takine* according to Schomburgk, but above it on the other maps.

Besides the above, shown on the maps, Sawkins also mentions *Arowyamo*, *Icarima*, and *Tacarrie* (can this be *Takine?*), which we are unable to locate or identify.

From Yamemure cataract to the mouth of Acarabisi creek the course of the river is nearly straight, trending about WNW., and the distance 27 miles. This stretch, with one noteworthy exception, is easily passed over in canoes—the rapids being for the most part unimportant. Where unimpeded by islands it is about 600 yards wide, gradually narrowing to 400 or 500 near Acarabisi creek.

About Yamemure cataract, where the river bends sharply to the northwest, low hills on either bank are shown on Schomburgk's official map. Some four or five miles west are the *Otomong* hills, 300 feet high, according to Schomburgk. Abreast of these Schomburgk shows rapids, which Hilhouse calls *Otomungh* fall,[1] a little below which, on the north bank, a small stream called *Assie* river is shown on the Great colonial map and on Brown and Sawkins' geological map. Of the *Otomong* nothing appears to be known beyond its mouth. Five miles above the Otomong is *Atacock* island, about 3 miles long. Near its head the *Brenasi* river flows in on the north bank. Like most of the tributaries of the Cuyuni, it appears to be little or quite unknown beyond its mouth. Somewhere in the vicinity of *Atacock* island is *Wataweiyka*,[2] not shown on any map. Just where or what it is does not appear. Just beyond are *Kenaima*[3] hills, island,

[1] Jour. Royal Geogr. Soc., Vol. VII, p. 449.

[2] Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 449.

[3] Schomburgk has *Kanaima* island, cataract, and river. *Canayma* of Lopez de la Puente: Venezuelan Documents, Vol. III, p. 248. *Kenaima* is the form given by Im Thurn; and this form is preferred, rather than *Kanaima*, as engraved on the base map of the accompanying atlas.

and fall. *Kenaima* is a word of sinister import. Im Thurn[1] devotes a chapter of his interesting book to it. *Avenger* seems to be its nearest English equivalent. A range of hills called *Kenaima*, running nearly east and west, here crosses the Cuyuni, interrupting its course, making numerous islets and the "dangerous" cataract of *Kenaima.* This stretch of vexed navigation is some 4 miles long. *Kenaima* island, about 4 miles long and somewhat curved here, divides the river. South of it is a narrow channel; north of it a wide one, much impeded by islands. Schomburgk shows a Waika settlement, called S. Lorenzo,[2] on the north bank, abreast Kenaima, and another on the southern bank near the foot of Kenaima.

From the head of Kenaima to Acarabisi creek is plain sailing. To Schomburgk's eyes, when he emerged from his long tramp through the gloomy woods on the north, the Cuyuni at this place "presented a magnificent sheet of water" 400 or 500 yards wide, with a bed full to overflowing and a current of perhaps 3½ miles an hour.[3] Similarly Campbell in 1857 speaks enthusiastically of this part of the river up which his party paddled September 28, 1857. He says that from the upper end of a small island just above Kenaima fall—

> one of the most magnificent views burst upon us. The river, dotted with islets and rocks, had expanded to at least a mile in width and was shut in on all sides by a fringe of the most gorgeous woodland scenery, in all the glory of a bright tropical sun. Behind, on our left as we looked down the river, was seen the great rapid or fall called by the Indians *Porro-eng.*

His companion "insisted on calling the place Fairy-land."[4]

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[1] Among the Indians of Guiana. 8°, London, 1883, p. 328.

[2] This name, *S. Lorenzo*, appears on the map in Richard Schomburgk's Reisen, etc., Vol. I. Hilhouse calls the Accaway settlement *Lorenzo.*

[3] Blue Book, Venezuela (1896), No. 5, p. 18.

[4] Timehri. 12°, Georgetown, 1883, Vol. II, p. 128.

Acayu island appears in the reach some 3 or 4 miles below the Acarabisi. We know nothing of it but its name; of its meaning we are also ignorant, and are further very doubtful about its orthography.

About 2 miles below the Acarabisi, on the south bank, is the *Comang* river.[1] Its course on the map appears to be conjectural only.

On the north bank, back in the woods, just east of the Acarabisi's mouth, is a Carib village or settlement. Hillhouse visited it March 29, 1837, and there obtained very fine yams, plantain, and cassava. He says it is the *first* (he was ascending the river) Carib settlement and is *five* miles inland. This appears to be the settlement *Haiowa* visited by Schomburgk July 19, 1841, and reported to be *two* miles from the Cuyuni. Here Schomburgk observed the latitude to be 6° 56′ N. and the altitude (by a boiling point thermometer) 260 feet, a determination which he considered "approximate." From this village, which consisted of 4 houses and 35 people, the Acarabisi's mouth is a mile and a half distant in a W. by N. direction.

Hereabouts, as everywhere to the Essequibo, dense forests cover everything but the greater streams. Only on their waters can one get a ray of sunshine. The soil here is fertile, as the sugar cane, cottons, yams, tobacco, etc., raised by the Indians abundantly prove.

Acarabisi[2] creek or river is of interest from its having been

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[1] Comang *creek* of Hillhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 449.

[2] *Carapeesy* creek of Hillhouse, 1837, *Acarabisi* of Schomburgk, 1841. *Akarabisi* and *Akarebissi* of Dixon.

selected by Schomburgk as a boundary line. Hilhouse, who was here in 1837, calls it *Carapeesy* creek, and late writers use *Akarabisi* and *Acarabisci*. It seems to be nothing other than *Carib* or *Caribbean* creek with the oft recurring termination isi or esce.

Its length according to Schomburgk's official map is 30 miles. It is separated from the *Aunama*, a tributary of the Barama, by a space of two miles. This space is occupied by a low ridge stretching eastward from this divide and becoming gradually lower, and also to the northwestward, where, at the head of the Barima, about 50 miles distant, it attains an elevation, according to Dixon, of 950 feet. The elevation of the divide was estimated by Schomburgk, who was here July 17, 1841, at 520 feet,[1] equivalent to 490 Paris feet as shown on Schomburgk's physical map of 1846. At the divide the hills rise 60 to 100 feet above the surrounding country. Both the *Aunama*[2] and *Acarabisi* are obstructed by fallen trees. "If properly cleared" of these, says Schomburgk, they "would afford a navigation to canoes and punts."[1] As to the *Acarabisi*, Schomburgk calls it a *rivulet* and a *river*. Hilhouse calls it a *creek*. Near the divide is a Carib village, in latitude 7° 4′ N., which, in 1841, contained 6 houses and 70 people. The valley of the *Acarabisi* was found in July, 1841, to be an almost continuous swamp, in which the travelers fell, sometimes to their waists, in mire.

W. H. Campbell, who followed Schomburgk's track up the

[1] Blue Book, Venezuela (1896), No. 5, p. 17.

[2] *Unama* creek of Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 339.

Aunama and down the Acarabisi, was at the divide on September 21, 1857, when he found the Acarabisi almost dry, and therefore was "at a loss to understand Schomburgk's remark about uniting the waters of the Aunama and Acarabisci by canal."[1]

Between the Cuyuni and the Barima the country hereabouts consists of a series of narrow valleys between hillocks of no great altitude, the principal valleys being those of the Aunama and Acarabisi. The general direction of the other smaller valleys, which vary considerably in extent, is in a direction oblique to these.

Dixon[2] descended the *Acarabisi* in May, 1894, and describes it as a network of fallen timber, navigated by his canoes "with endless trouble." Where he fell in with the creek, near the divide, it was 20 feet wide, 400 feet above sea level, and with hills thereabout rising 100 to 150 feet.

From the mouth of the Acarabisi to the mouth of the Curumo (or *Botonamo*) river is, following the river, 45 miles. Schomburgk shows this part of the river on his official map as a much generalized sketch only; it not having been visited by him when that map was made, he gave no details. For some 5 or 6 miles above Acarabisi the river trends about WNW. to the mouth of *Morauran* creek on the north bank. In this space it is impeded by islets and two rapids, unnamed on any map seen. It was in this vicinity that Hilhouse "slept at the foot of the *Macabbah* rapids" March 29, 1837.[3]

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[1] Timehri. 12-, Georgetown, 1883, Vol. II, p. 124.
[2] Jour. Royal Geogr. Soc., April, 1895, p. 340.
[3] Jour. Royal Geogr. Soc., Vol. VII, p. 449.

Here on the south bank is *Macapa* mountain, of the Great colonial map, about 300 feet high. On Schomburgk's official map this mountain is placed opposite the mouth of Acarabisi creek, and in his text he speaks of a "small chain of hills called *Macapa*," which from the mouth of the Acarabisi bore nearly west, distant about a mile. About two miles above Acarabisi creek, *Atha* creek comes in on the north bank. Little is known of it beyond its mouth. Along *Morawan*[1] creek of Dixon, navigable for canoes for 5 or 6 miles, a trail was in 1817 opened which, ascending the creek some 15 miles, then deflected to the west and ended at *Tumeremo* on the border of the forest. The length of this trail was about 90 miles. At a distance of only twenty minutes by canoe above *Macapa* rapids, *Eyreycooney* creek of Hilhouse comes in on the south bank. It does not appear on any map unless perchance it be identical with *Kalara Paru* of Dixon. Hereabouts is "open water" and the river about 150 yards wide.[2] For 25 miles above the mouth of *Morawan* creek the river has a fairly straight course SW. by W. for 25 miles, then with a long, sweeping curve to the south and west through a distance of 10 miles we reach the mouth of *Maurucaru* river on the north bank. Somewhere in this stretch on the south bank Hilhouse found the Carib settlement *Mauricios*, called *Unawarooa* from a small creek just above. Campbell passed this creek September 30, 1837, which he describes as—

> a large creek, on our left hand (he was going up river) called *Urawararwa*, probably the same laid down in Schomburgk's map as *Uruaraia*."[3]

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[1] *Muruawaini* of map in Richard Schomburgk; Reisen. 8°, Leipzig, 1847, Vol. I; and unnamed on the Great colonial map.

[2] Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 450.

[3] Timehri. 12°, Georgetown, 1883, Vol. II, p. 129.

This name is not found on any map that I have seen, and I have not succeeded in discovering what map is here referred to. Schomburgk's official map[1] has a *Ruarua* river somewhere near this place; and here he later places the *Cura Cura* or *Ekruyeku* river. On the north bank, hereabouts, Campbell mentions a creek called *Wakenaam* by the Akawais and *Waka* by the Caribs. In this stretch of 35 miles several islands appear and two tributaries only; one on the south bank, *Kalara Paru* above mentioned, and one on the north bank, *Kuraru Paru*, of Dixon, at the head of which he indicates a "cattle pen" or corral about 12 miles back from the river. The stream is a short one, a dozen miles long, not navigable, and debouches 8 miles above *Morawan* creek.

Beginning at the mouth of *Maurucaru* creek, near the sixty-first meridian, the character of the river changes, and ascending, we enter a widish gorge or narrow valley. This change is well set forth by Hillhouse, who was here in 1837 and who six years before had ascended the Mazaruni in company with Capt. J. E. Alexander.[2] "In this day's progress" (March 30, 1837), he says in his journal:

We had two views of the mountains of *Tippoorah*[3] and *Mocrocara*:[4] the ridges appear to run S. E. and N. W., and their northern faces seem about 2000 feet high, the upper half of which is an angle of 75°, and the lower, or debris, 45°. They differ in this from the mountains of the Massaroony, which are perfectly precipitous on their N. faces,

[1] Blue Book, Venezuela (1896), No. 5.
[2] Jour. Royal Geogr. Soc., Vol. II, p. 67.
[3] *Tapuru* of Richard Schomburgk and Great colonial map.
[4] *Maurucaru* of Richard Schomburgk and Great colonial map.

though the rock appears similar, and they are covered with stunted trees to their summit; they terminate at the south bank of the river, nor have I seen any indication of hills worthy the name of mountains on the north side.[1]

From *Maurucaru* mouth to the mouth of the *Curumo* is eight miles, the course of the river crooked, and in its northernmost bend is *Piake* island, opposite which on the north bank falls in a stream of the same name. The river is here a gorge or defile resembling the approach to Loch Katrine and the Trossachs, the hills apparently 1,000 to 1,500 feet high.[2] On the south bank are the *Ekreku* mountains of Richard Schomburgk, which he says "undoubtedly form the northernmost outlier of the Roraima chain."[3] Of this group of mountains five bear names on the Great colonial map, viz: *Maurucaru*,[4] *Tapuru*,[5] *Zapang*,[6] *Manaweri*, and *Punkuiba*. These names were, no doubt, obtained by Schomburgk, the journal of whose travels here, and down the Wenamu in January, 1843, have been found only in the work of his brother Richard, entitled Reisen in Britisch Guiana, etc., 3 vols., 8°, Leipzig, 1847–48. *Maurucaru* is described as a ridge of sandstone trending SE. and NW.[7] A mountain similar to it the Indians call *Yapong*. These names appear to be the special ones applied to particular features of the big sandstone table or mesa constituting

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[1] Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 450.
[2] Timehri. 12°, Georgetown, 1883, Vol. II, p. 130.
[3] Reisen. 8°, Leipzig, 1848, Vol. II, p. 349.
[4] *Mourrocara* of Hilhouse.
[5] *Tippoorah* of Hilhouse.
[6] *Yapong* of Richard Schomburgk: Same, p. 349.
[7] Richard Schomburgk: Reisen, Vol. II, p. 349; and Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 450.

the *Ekreku*[1] mountains, which fill the space between the great bend of the Mazaruni at Peaimah[2] fall and the Cuyuni at the mouth of the Curumo, a distance of 30 miles. This is a bench estimated at 2,000 to 2,500 feet in height with a savanna on top. *Ekreku* or *Cura-Cura*[3] creek or river, rising high up on this bench, near longitude 60° 30′ W., flows west for about 40 miles, then bending abruptly to the north flows some eight miles NNE. to join the Cuyuni at a point about ten miles above the *Curumo*. Its width at the mouth about equals that of the *Wenamu* a few miles farther up, and its coffee-colored water resembles that of the Rio Negro. It is actively deepening the gorge it has cut. The elevation of the savanna through which it runs in its upper and middle course is estimated at 1,500 feet, with mountains on either side rising 1,000 feet higher. From this level, of say 1,500 feet, it descends in the course of 20 miles, 1,100 feet by a series of unnavigable rapids and falls, to the Cuyuni, whose altitude is here supposed to be about 400 feet.[4] In the savanna, on this mesa, Hilhouse botanized in 1837 and found almost identically the same species of plants that grow on the Demerara sand hills and at tide level.

The *Curumo*[5] river is one of the important tributaries of

[1] *Currocuro* of Codazzi's atlas.

[2] So written by Brown in his Canoe and Camp Life, p. 376; the Great colonial map has *Peaimah* fall and Falls of *Piamah*. Erroneously *Peiamah* on maps 1–15 of the accompanying atlas.

[3] *Coora Coora* creek of Hilhouse; Rio *Ruaria* of Codazzi; *Ekruyeku* or *Cura Cura* river of the Great colonial map; *Ekruyeku* of Richard Schomburgk, who calls the mountains *Ekreku*; *Ekureka* of Dixon.

[4] Hilhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 451.

[5] *Kurumu* or *Botonamo* of Dixon; *Coroowa* creek of Hilhouse; *Curuma* of Richard Schomburgk, and *Botonamo* of the Venezuelans, teste Dixon; *Curumo* of Lopez de la Puente, Ven. Doc., Vol. III, p. 217; *Cururunu* of Arrowsmith, 1842; *Curumu* of Cruz Cano, 1775; *Cooroomoo* creek of Timehri, Vol. II, p. 120.

the upper Cuyuni. It has several tributaries, and a drainage area of 3,000 or 4,000 square miles. Of its tributaries the Great colonial map gives the names *Guaran*, *Tocupo*,[1] *Conumo*, and another, *Guaran*, all of which, as well, doubtless, as others not shown, head in the *Imataca* mountains. All these appear to be wholly in forested country,[2] though Richard Schomburgk speaks of the "*Curuma*" as flowing through savannas which extend to the north of the *Caroni*.[3] All these streams seem to be imperfectly known. Dixon indicates that the *Curumo* is navigable "one day's pull in a boat" to the mouth of the Guaran. His map shows this "one day's pull" to be 16 to 18 miles. Hillhouse, who passed its mouth April 1, 1837, reported "the creek (*Curuma* river) dry and stagnant, the communication being only open during the rains." He says its waters are muddy; and also that, being the lowest direct communication with the Spanish provinces, it was the old route of smugglers; "and the company of soldiers at *Cateeya* were as much for the prevention of smuggling as for the protection of the missions."[4]

On the south bank of the Cuyuni, opposite the Curumo mouth, was "the Spanish military post *Cateeya*."[5] The Great colonial map has at this place the symbol of a village marked "Cadiva (in ruins). Ancient Fort. Most Easterly Spanish

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[1] *Tokupo* of Dixon; *Tucupu* of Cruz Cano, 1775.

[2] See Dixon's map.

[3] Reisen in Britisch Guiana. 8°, Leipzig, 1848, Vol. II, p. 349. This word *Caroni* appears to be an error for *Cuyuni*.

[4] Jour. Royal Geogr. Soc., Vol. VII, p. 450.

[5] Hillhouse: Jour. Royal Geogr. Soc., Vol. VII, p. 451. *Cadiva* of Richard Schomburgk: Reisen, Vol. II, p. 349; *Catiya* or *Curumu* (Destacãmento de Cuyuni) of Blue Book, Venezuela (1896), No. 5, p. 18.

post (Humboldt)." Also from this point a straight boundary line is drawn northeastward to the mouth of the Amacura river, where an ancient Dutch post is indicated. Lopez de la Puente, who was at *Cadiva* in 1778, says: "Opposite this (Curumo) mouth all around the cove lies high, hilly land on the banks of the Cuyuni, and at the lower end of the mouth there is a good site for a settlement and farming, it being flat but high land."[1] Dixon, who was here in 1894, says: "Near the mouth of this (Curumo) river it is reported that the Venezuelans had a fort, but there is no habitation of any kind to be seen now."[2]

Above the mouth of the Curumo, on the northern or left bank, are the *Kaliaku* hills of Dixon, "differing," he says, "from any yet met with." He was ascending the Cuyuni. "They had perpendicular fronts scantily covered with bush, and appeared to have a level surface on the top." Just beyond, on the same bank, is a clearing made by Venezuelans, and by it comes down the turbulent *Kaliaku* creek, foam covered, in flood, from its falls near its junction with the Cuyuni. Evidently the north bank of the Cuyuni is here a mesa.

From Curacura creek to Wenamu creek is 10 miles, the general course W. by N., and a little below Wenamu mouth is *Paragua* island and cataract of Dixon. The cataract proved a difficult one to pass at a high stage of water.

Wenamu[3] river was first explored by Schomburgk in December, 1842, and January, 1843. All geographic infor-

[1] Venezuelan Documents. Vol. III, p. 248.

[2] Jour. Royal Geogr. Soc., April, 1895, p. 340.

[3] *Venamo* of Codazzi's atlas, 1840; *Venam* of Capuchin Mission map, 1789.

mation respecting it appears to rest on his journey down it, an account of which is found in Richard Schomburgk's Reisen, etc., vol. 2, pages 346–348. A condensed account is given in the Blue Book, Venezuela (1896), No. 5, page 40. Its mouth is in latitude 6° 44′ N., longitude 61° 15′ W., according to Schomburgk. The stream is a tortuous one, through a mesa country, and much impeded by rapids and cataracts, of which the greatest is *Immapara*,[1] some 35 miles from the mouth, in latitude 6° 18′ N., and near the steep and conspicuous *Pakarampo*[2] mountain on the western or left bank. Above this cataract Schomburgk journeyed on foot, below it in canoes, but found it difficult, losing one canoe with most of his supplies. One of the tributaries of its head waters is the *Cori*, whose source is 2,700 feet above sea level. This short stream is a small affluent of the *Tziau*, and the *Tziau*, about 20 miles long, is an affluent of the *Wenamu*. The high sandstone mesas in this region attain elevations of 3,000 feet. From these heights the high mountains of the Mazaruni appear on the eastern horizon, while at the foot of the cliffs begin the dense forests, extending like a green ocean to the horizon on the northeast. Richard Schomburgk describes this beautiful view as seen from the summit of *Cara-utta*,[3] a rocky platform 400 feet above the level of the surrounding country. A little below Cara-utta is a sandstone cliff, *Humirida*, which can only be scaled by ladders. Without these the cliffs are as impassable as those of Roraima. *Cara-utta* is on the western bank

[1] *Imaparu* of Blue Book, Venezuela (1896), No. 5, p. 40.
[2] *Pakarampu* of the Great colonial map.
[3] *Carautta* of the Great colonial map, in latitude 6° 3′ N., longitude 61° 13′ W. Gr.

of the *Tziau.* A little below, on the opposite bank and 2 or 3 miles back from the river, is a sandstone cliff, or mountain chain, trending from NW. to SE., and called by the Indians *Arwarimatta,* whereon is a breeding place of the "splendid bird," *Rupicola crocea.*[1] Near these cliffs is the native village *Parutang.* Just below it the *Carapu,* a small stream, joins the Wenamu on the eastern bank, flowing in against its current. From here can be seen *Kinauri-ké* mountain, 20 miles to the southward. At the mouth of the *Carapu* the Wenamu is 250 feet wide. Down stream from this point[2] rapids and falls follow one another in such quick succession that the stream presents the appearance of an almost unbroken succession of foaming rapids. On the right or eastern bank is a ridge or cliff, called by the natives *Poinka-watu* (*Peccary snout*); on the opposite bank sandstone cliffs 1,500 feet high rise almost from the water's edge. In this region Schomburgk reports a rainfall in a single night of 4.28 inches; temperature, 69° to 75° F. Some 10 miles below the great cataract *Immapara,* the *Wenamu* receives on its eastern bank the dark colored waters of *Marawar*[3] river. A little way from the junction is the Akawai settlement *Arikanang,* consisting of 4 houses and 50 people. It is in latitude 6° 26′ N., longitude 61° 17′ W., and was the southernmost Akawai settlement in this region. From here to the mouth of the *Wenamu,* 25 miles, but two tributaries come in, both on the west bank. One is unnamed, the other is called *Apangwau.*[4] East of the Wenamu, in its

[1] Richard Schomburgk: Reisen. 8°, Leipzig, 1848. Vol. III, p. 694.
[2] Richard Schomburgk: Reisen. 8°, Leipzig, 1848. Vol. II, p. 347.
[3] *Murawar* of the Great colonial map.
[4] On the Great colonial map; not mentioned by Schomburgk.

lower course, are high, isolated sandstone mountains, trending ESE. and WNW., one of which bears the name *Tawampeh* on the Great colonial map. On the opposite bank, at the mouth of the Wenamu, is *Curantu* mountain of the same map.

As a whole, then, the *Wenamu* is a torrential stream 60 miles long, actively cutting down its bed through nearly level beds of sandstone and making cliffs and cataracts. In its 60-mile course it descends from elevations of some 2,500 to 3,000 feet to an elevation of about 400 feet. Its banks are forested throughout and views are obtainable only from some of the isolated rocky platforms or benches of its upper course.

From the Wenamu's mouth the distance up the *Cuyuni* to the mouth of the *Yuruan* is about 20 miles, and the direction southwesterly. In this stretch canoe navigation, in the wet season, is good, only one small rapid being reported.[1] This small rapid may be the *Yacami* rapid of Campbell, October 4, 1857, who reports it one of the most difficult he had met with, and above it to the mouth of the Yuruan the river "was one confused mass of islands and rocks and one continuous series of falls and rapids." Just below *Yacami* the Cuyuni is said to be fordable at low stages. The banks hereabouts differ from the lower river; they are high and sandy; the trees are smaller and apparently of kinds different from those down the river.[2]

On the south bank of the Cuyuni, directly opposite the mouth of the *Yuruan* river, is the *British Post*,

a plain frame building surmounted by the British flag, where are quartered (June, 1894) an inspector and six policemen.[3]

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[1] Dixon: Jour. Royal Geogr. Soc., April, 1895, p. 341.
[2] Timehri. 12°, Georgetown, 1883, Vol. II, p. 132.
[3] Dixon; p. 341.

On the opposite bank is the *Venezuelan Post* or station, which in 1894 consisted of

> three or four thatched adobe houses, surrounded by clearings well stocked with provisions and pasture for the cattle, and for the mules and donkeys which are used for carrying freight and for riding.[1]

A very good mule path connects this station with Tumeremos, about 30 miles distant, from whence supplies are obtained.

Of the Cuyuni above this point little is known. It is shown on the latest maps in only a very general way, without details, and may have been sketched from Indian reports. According to the Great colonial map it heads about 60 miles SSW. from the mouth of the Yuruan and has a single tributary, the *Zaura*,[2] in its upper course, falling in on its eastern bank. Dixon's map of 1894 indicates another, lower down and on the west bank, called the *Chikamong*, navigable for a five-day journey in a wood-skin canoe.

Here ends this prosaic compilation of statements descriptive of or bearing upon the geography of the *Cuyuni* river and its basin (with the exception of the *Yuruan* and its tributaries) as based upon Hilhouse, 1837; Schomburgk, 1841–43; Brown and Sawkins, 1868, and Dixon, 1894. These are the chief sources of information. Of the expedition by Lopez de la Puente in 1788 little use could be made, as the map to which he refers is inaccessible.[3] Most of the places he mentions can not be identified with certainty. It seems advisable, however, before leaving this part of the subject, to briefly

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[1] Dixon; p. 312.

[2] *Zarra* of Codazzi, 1840, and *Zaura* of Cruz Cano, 1775.

[3] Venezuelan Documents, Vol. III, p. 251.

summarize his journey, record the names he uses,[1] and by his itinerary indicate the approximate location of the points mentioned by him.

Lopez started from "the port of *Cura*," situated on a stream which debouches into the Yuruari, only three hours' canoe journey above the junction of the Yuruari with the Yuruan, on November 29, 1788, with 4 canoes and 5 militiamen, for a journey to the *mouth of the Cuyuni* to arrest an Indian named *Manuyari*. He reached the Cuyuni on the third day, November 31 (*sic*), and traveled on it five hours. Traveling good, the river being 200 varas wide and deep enough for any launch. Camped at *Chimiri* island.

December 1.—Left *Chimiri* island, and traveled eight hours to the mouth of *Perdido* channel. Near these he mentions *Matapi* rapids, *Mura* rapids, 2 leagues long, and *Aguarari* rapids, after which is good traveling to the mouth of the *Curumo*, which was reached on the eve of December 2, after ten hours' travel.

December 3.—Left *Curumo* 8 a. m.; good traveling eight hours to *Mauparipati* islands, where he camped.

December 4.—Left *Mauparipati* islands and traveled eight hours to *Acayo* islands, where he camped. Traveling good.

December 5.—Left *Acayo*, which is a short distance above the *Kenaima*[2] rapids, where the river divides itself into two branches as far as the island of *Iraripira*,[3] and camped. Traveled four hours.

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[1] Venezuelan Documents, Vol. III, pp. 246, et seq.

[2] *Canayma* of Lopez.

[3] Lopez also writes *Araripira, teste* Ven. Doc. Vol. III, p. 249. Obviously this island is not far from the foot of *Kanaima* island of the Great colonial map.

December 6.—Left *Iraripira.* Traveled nine hours on a bad river full of rapids, and halted over night at the very shallow *Guornuispo* rapids.

December 7.—Left *Guornuispo*, and traveled eight hours on a bad river to the "Pass de las mulas called *Notupicay*"; thenceforward good navigation without rapids to *Tapujumo*, where he camped.

December 8.—Left *Tapujumo.* Heavy rain. Passed but one rapid. Traveled seven hours, and camped on *Acayushiri* island.

December 9.—Left *Acayushiri.* Traveled nine hours; river good; passed only one rapid. Camped at point *Capachi.*

December 10.—Left *Capachi.* Traveled ten hours; passed five rapids, not of the largest, and camped at the mouth of *Tupuro* channel at the head of *Camaria* rapids, which are 2 leagues long, and end near the mouth of the Cuyuni, about a mile above its junction with the Mazaruni, where a Dutchman named Daniel was living with four companions. From camp a path led to Mamuyari's house at the foot of the rapids.

December 11.—Arrested *Mamuyari*, together with eleven others.

December 12.—Started back up the river. Camped at *Tosqueñe* rapids.

December 13.—Left *Tosqueñe.*

December 24.—Reached the mouth of the *Curumo* and rested two days.

December 27.—Started up the *Curumo.* Traveled seven hours.

December 28.—Kept on with good navigation, the water being deep enough for any pirogue, but not for launches. Traveled eight hours.

December 29.—Passed the mouth of the *Guaramo* channel (*Guaran* river of the Great colonial map), a little above which the canoes were sent back in the belief that navigation ended here. Later repented, as he might have gone farther in the canoes.

December 30.—Traveled six hours on land.

December 31.—Traveled eight hours on land.

January 1, 1789.—Traveled nine hours on land.

January 2.—Traveled nine hours on land.

January 3.—Traveled six hours on land.

January 4.—Traveled two hours to a small plain east of the "*Butunambo*[1] channel," which we crossed, and after a league of mountains came out upon the savannas of *Curumo*, over which a road runs to *Tumeremo*.[2]

Of the upper Cuyuni, the chief tributary is the *Yuruan*,[3] which, with its various primary and secondary tributaries, constitutes the drainage system of a savanna region lying southeast of the junction of the Caroni with the Orinoco. The area drained by this system exceeds 6,000 square miles, of which the greater part is savanna or pasture land of moderate elevation, undulating, in some parts swampy, and interspersed here and there with clumps of timber.

[1] *Botonamo* river of Dixon.

[2] Often written *Tumeremos*.

[3] *Juruan* of Codazzi's atlas, 1840, and apparently *Yuruamo* of Cruz Cano, 1775; *Iuruamo* of Arrowsmith, 1842.

Here were the old Spanish missions, of which the first appears to have been established in 1724 and the last in 1788—the whole number being more than 40—and here are the principal gold fields. The limits of the savanna are shown in Codazzi's atlas, 1840. Its southeastern limit is also shown by Dixon, 1895. Generally the savanna is invisible from the rivers, the banks being fringed with trees. The appearance of the savanna near the southeastern border is thus described in Campbell's diary:[1]

Undulating and hilly ground stretched as far as the eye could see, with scrubby looking bushes and clumps of trees and aeta palms (*Mauritia flexuosa*) scattered over it. The soil seems poor, hard and arid, with a scanty vegetation of tufts of coarse-looking grass about 15 or 18 inches high. Great blocks of granite, from 50 to 60 feet in length and breadth and about 20 feet in height, appeared in several places, all rounded and water-worn. Almost every small hill was covered to its summit by water worn quartz gravel, of considerable size, intermixed with blocks of quartz from 1 to 2 feet high of various shades of white, pink and red. Cacti of large size and aloes were also seen. The soil was found to be mixed with black ashes, as if it had recently been burned, as, we were told, it constantly is, to keep the grass low and thus to guard against rattle-snakes.

The characteristic plants of these savannahs are the tree or bush called chapperal (*Curatella americana*) * * * and the aeta palms (*Mauritia flexuosa*), graceful groups of which are seen where are springs, rivulets, or swamps.

The *Yuruan*,[2] or as perhaps it might better be called, the *Yuruari* drainage basin, is bordered on the west by the height of land separating it from the Caroni. Little

[1] Timehri. 12 , Georgetown, 1883, Vol. II, pp. 131 and 146.
[2] *Yuruamo* of Cruz Cano, 1775.

information is available as to this divide; it appears to be low. To the north the *Piacoa* mountains separate it from the Orinoco. This range is low and the slope to the Orinoco gentle, at least in parts. To the eastward no prominent features separate it from the *Curumo* basin. Farther south the division between this basin and the Cuyuni is marked on Codazzi's map by the *Sierra Camuran.* These are copied on Richard Schomburgk's physical map but omitted from the Great colonial map.

The southern border of the basin is in the *Usupamo*[1] mountains, "high according to Indian reports," and but little known.

The *Yuruan* river heads, according to Schomburgk, in the high *Usupamo* mountains near the sixth parallel of north latitude, and has a general northerly course for about 60 miles, when, being joined by the *Avechica* on its left or western bank, it bends rather sharply around to the southeast and continues this general southeast course for 25 miles to its junction with the Cuyuni. Little is known about it. Codazzi makes it 140 miles long and indicates that it can be navigated for 80 miles in canoes to the mouth of the *Camuran*[2] river, a tributary 50 miles long, coming in on the eastern bank. At the junction is a native settlement. About 50 miles farther downstream Codazzi shows a river 40 miles long, the *Camarate*, coming in on the eastern bank. This is the *Camuran* of the Great colonial map and of Schomburgk's physical map. At its mouth the *Yuruan* is 200 yards wide, which is about half the

[1] *Serr*^{nia} [i. e., Serrania] *de Usupama* of Cruz Cano, 1775.

[2] *Kamuran* of Dixon.

width of the Cuyuni at their junction. At first the banks are low. This, however, continues but a short distance, 2 or 3 miles perhaps, when they become high. The water is dark in color, the current strong, and the river beset with rocks and islets, presenting "a basaltic appearance with needle-like points."[1] Three hours up the river by canoe from its mouth it widens out and is crossed by clumps of guava bushes (*Psidium aquaticum* and *P. aromaticum*). Six miles above its mouth it receives from the north the sluggish and dirty waters of the *Yuruari*, here not more than 160 feet wide. The trees here are a mere fringe of scrub, behind which is swamp or savanna. Five miles farther there comes in from the north the *Cupa*,[2] which river has an affluent called the *Gaspun*. Perhaps these are confusions of one name. Cruz Cano shows one river only and calls it *Capun*.

The only remaining tributary of the Yuruan, shown on the later maps, is the *Avechica*,[3] 80 miles long according to Schomburgk's physical map, and north of which are the *Arechica* mountains and *Arechica* savanna. The mountains appear to be a short range trending NE. and SW. Their height according to Codazzi[4] is 940 varas (equal to 2,585 English feet) or equal to 2,419 Paris feet as given by Richard Schomburgk. At the western end of this range and near the north bank of the *Arechica* river was the Capuchin mission *San Juan Bautista de Arechica*, founded in 1783, and containing in 1799 a

[1] Timehri: 12 , Georgetown, 1883, Vol. II, p. 133.

[2] *Kupa* of Dixon.

[3] *Auechica* of Dixon; *Arechica* of Cruz Cano, 1775, and said to be derived from *agua* and *chica*.

[4] Resúmen de la geografía de Venezuela. 8 , Paris 1841, p. 636.

population of 514.[1] From here a trail leads over or past the *Guayo*[2] mountains to the Caroni, about 50 miles distant. Some 8 or 10 miles north of Avechica was the *Santa Barbara* mission.

THE YURUARI RIVER.[3]

This river, heading near the low divide between the Cuyuni and Caroni watersheds, in latitude 6¾° N., has in general a northerly course for 40 miles, then an easterly course for 40 miles, and lastly a southeasterly course for about 60 miles, to its junction with the Yuruan. It flows through the savanna country where the Capuchin missions were built up in the last century. It is along this river that the richest of the gold fields of the Orinoco-Essequibo region have been developed in recent years. At its mouth it is but 160 feet wide and for a few miles is "singularly uninteresting."[4] About six hours' journey by canoe from the mouth is "a series of rapids," where the water pours over "most enormous beds and blocks of granite which much exceed in height, and are much more difficult of ascent than any met with in the Cuyooni."[5] It is here that Codazzi's map indicates the head of navigation, and by it on the western or right bank he locates the old mission *Cura*, or *Santa Roza de Cura*, founded in 1782, and containing in 1799 a population of 895. Schomburgk locates it

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[1] Blue Book, Venezuela (1896), No. 3, p. 355.

[2] *Cerros de Guayo* of Codazzi.

[3] *Yuruan* of Codazzi; *Juruario* or *Yuruari* of Schomburk's physical map; *Yuruario* of Cruz Cano 1775; *Iuruario* and *Iutucuruima* of Arrowsmith, 1842; *Yuarnare, Uruguare* or *Yuanrare* in Qy. Jour. Sc. Lit. and Arts. 8°, London, 1820, Vol. IX, p. 13 and map.

[4] Campbell's diary: Timehri, Vol. II, p. 133.

[5] Campbell's diary: Timehri, Vol. II., pp. 133–134.

in the same place, while Arrowsmith's map of 1842 indicates uncertainty as to its location. It was abandoned a little before 1818.[1] A few hours' journey farther up the river is a yet greater fall, the noise of which may be heard for an hour before it is reached. "The river here presents a magnificent appearance, being broad, and pouring its torrents through gigantic masses of granite."[2] A little above this, the savanna reaches the banks in places, first on the eastern and later on both banks. In this vicinity is the *Wykoo* or sun rock of the Indians, on which are various carvings, one of which is supposed to represent the sun.

On emerging from the river's wooded fringe to the open savanna, Campbell climbed a small hill a half mile from the river and obtained a delightful view. Far in the distance, and from west around to northeast, were seen high mountains probably those bordering the Orinoco. The view was diversified by nearer hills and large savannahs as far as the eye could reach, woods bordering the creeks and rivers, and clumps of trees in all directions. There was a fine breeze; a thunderstorm was passing in the distance; and the setting sun illumined the whole. Altogether it was very pleasing.[3]

It is hereabouts that Dixon's map indicates the limit of the savannas toward the southeast. From the mouth of the river to *Tupuquen* is about 50 miles. Campbell, starting up on the morning of October 8, 1857, reached Tupuquen about noon October 13. Hereabouts are the rich gold diggings.

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[1] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 9.
[2] Campbell's diary: Timehri. 12°, Georgetown, 1883, Vol. II, p. 134.
[3] Campbell's diary: Timehri. 12°, Georgetown, 1883, Vol. II, p. 136.

Tupuquen stands at one corner of an immense plain at the foot of a ridge of mountains. It was a Capuchin mission to the Caribs, founded in 1770, and called *San Felix del Cantalicio de Tupuquen.*[1] Population in 1799, 567; in 1803, 570; in 1818, 150. Hereabouts is a fine savanna and fertile soil. In 1818 most of the Carib men had abandoned the mission, having returned to the mountains, "whither their wives were fast following them." In 1857 it was, according to Campbell, a "wretched place," the houses of the poorest sort, of wattle and mud, and seldom having more than one apartment. "The situation is fine, overlooking an extensive green savanna with mountains on three sides."[2] *Tumeremo*, another mission, lies southeast of this—"27 miles," says Campbell in 1857, "9 leagues," says an anonymous author in 1818.[3] It was the latest of the Capuchin missions, being founded in 1788, and named *Nuestra Señora de Belen de Tumeremo.*[4] It had in 1799 a population of 351; in 1803, 416. In 1818 consisted of 63 single houses. Proselytes are of the Guayano tribe. Just south of it is *San Antonio* mountain of Codazzi's map. Seven or eight miles below Tupuquen and on the opposite bank of the Yuruari is the old mission *Angel Custodio*, and 7 or 8 miles farther down the *Caiguao*, a small river, debouches on the western bank. This stream, 15 miles long and heading in the *Caiguao* mountains, is the only tributary of any

[1]Blue Book, Venezuela (1896), No. 3, p. 355; erroneously *Tupuquem* in Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, map; and *Tupequem* of Arrowsmith, 1842; *Tupuken* of Dixon, 1895.

[2]Campbell's diary: Timehri, Vol. II, p. 138.

[3]Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 10.

[4]*Tooporemo* of Campbell's diary and *Balem de Tumeremo* of Schomburgk's physical map. *Tumeremos* of Dixon. *Tumuremo* of Great colonial map.

size received by the Yuruari between Tupuquen and its mouth, a distance of about 55 miles.

New Providence Mining District.—This gold-mining district lies on the banks of the *Yuruari*, about 60 miles from its mouth, in latitude 7° 15′ N., longitude 62° to 62° 15′ W. Bianconi's map of 1888 contains an inset showing some of the details of this district; Dixon's map of 1895 also shows the region. The discrepancies between these are so great that a detailed description seems inadvisable till more information is at hand. In this region are the *Guasipati*[1] mountains, of which the *Caiguao* mountains above mentioned seem to be a near outlier on the south. Perhaps the *Avechica* mountains, some 15 miles farther south, are a part of this same ridge. Some 30 miles to the NNE. are the *Nuria*[2] mountains, apparently a spur of the Imatacas. As to these mountains, the *Nuria*, *Guasipati*, and *Avechica*, their appearance on the map, together with descriptions by travelers, suggests that they once formed the northwestern barrier of a great lake, which broke an outlet southward to the Cuyuni. Campbell says:

From the summit of the small hill south of Tupuquen, immediately above the burying ground, we had a most beautiful view of the sur-

[1] *Guazaypati* of Cruz Cano, 1775; *Guazaipali* of Caulin's map, 1778, but always *Guazaiparo* in text, pp. 358–359; *Guascipati*, Blue Book, No. 3, p. 355; *Guacipati* of Bianconi, 1888; *Caratal* hills or mountains (he uses both) of Campbell, who says they are so named from the *Carata* palm (*Mauritia aculeata*) growing abundantly on them (Timehri, Vol. II, p. 115); *Guasipati* of Codazzi; *Guasipati* and *Guasapati* on Great colonial map; *Wasipati* of Qy. Jour. Sc. Lit. and Arts, Vol. IX, map, and *Uasipati* of text, p. 11. The mission founded in 1757 was named *Nuestra Señora del Rosario de Guascipati*. Blue Book, Venezuela (1896), No. 3, p. 355.

[2] *Cerros de Nuria* of Codazzi, who gives their height as 850 varas (= 2,337 English feet); *Nuria* gebirge of Schomburgk's physical map, height 2,185 Paris feet (= 2,338 English feet). *Noria* Mountains of Campbell, Timehri, Vol. II, p. 144.

rounding country, which presents on every side a grand savanna surrounded by the Caratal, Noria, and other mountains. The whole seems as though it had once been the bed of a lake which, when it burst its boundary, emptied itself by the Cuyooni.[1]

At *Macapero* fall in these Caratal hills (*Guasipati* mountains) the Yuruari runs over a mass of very hard rock and falls 30 or 40 feet into a circular basin, said to be very deep.[2] Perhaps this Macapero is the *Nacupay* of Bianconi's inset map, on which the *Mocopia* river is shown as debouching at Nacupay. Near by is a small stream, *San Juan* river, and the settlements or mining camps *Nueva Providencia*, *Peru*, *Chile*, *Potosi*, *Valparaiso*, and *Callao* or *El Callao*. Campbell's diary gives a dreary picture of this mining region as he found it in 1857. He was forty-five days in reaching it from the Pomeroon *via* the Cuyuni, while the return journey over the same route by some of his party took twenty-two days.[3] The missiou *Guacipati*, founded in 1757 and called *Nuestra Señora del Rosario de Guascipati*, had in 1799 a population of 738. It lies, according to Bianconi, about 4 miles from the Yuruari on its north bank, between two streams, the *Miamo* and *Cunuri*, which unite and flow into the Yuruari. This *Miamo* river of Bianconi is evidently the *Cumamo*[4] of other authors, a river more than 40 miles long, heading in the Imatacas and flowing at first southwest, then south to the Yuruari. Near its source is *Cumamo*[5] mountain, 2,150 feet high, and on its right or east-

[1] Campbell's diary: Timehri, Vol. II, p. 144.
[2] Campbell's diary: Timehri, Vol. II, p. 140.
[3] Campbell's diary: Timehri, Vol. II, p. 143.
[4] *Kumamo* of Dixon.
[5] *Cerro Cumamo* of Codazzi, who gives the height as 780 varas (equivalent to 2,145 English feet), while Schomburgk gives 2,315 Paris feet (equal to 2,468 English feet). Schomburgk's height is doubtless an erroneous conversion of Codazzi's value. The height may be taken as 2,150 feet.

ern bank the old Capuchin missions *Cumamo* and *Miamo*. In its upper course it receives on its north bank an affluent called *Guanare*. *Terepe* mountain, on the east bank of the river, lies a little below the mission Cumamo. On its eastern bank it receives an unnamed affluent 30 miles long, which heads near *Santa Cruz* mountain. On the western bank of this nameless stream was the mission *Carapo*,[1] founded in 1751 and named *San Fidel del Carapo*. Population in 1799, 768. It is, or was, on an elevated spot near the woods. It was a Carib mission.

About 15 miles above El Callao, following the Yuruari, the *Yama* or *Aima* river falls in on the western bank. Between these *Limones* river of Bianconi comes in on the south bank, draining past *Choco* and *Concordia* in the Choco district, apparently one of the gold-mining districts of the Yuruari.

Yama and *Aima* appear to be two forms of the same name. In 1755 was established the Capuchin mission *San José de Leoniza de Aima*.[2] This is *S. Joseph de Leonisa* of Cruz Cano's map, 1775, and of Caulin, 1778. Codazzi in 1840 calls it simply *Aima*, and Schomburgk, in 1846, *San José de Aima*, while the anonymous English author of an inspecting tour of these missions in 1818 calls it *Ayma*. It appears to be located on the south bank of the Aima[3] about 20 miles from its junction with the Cuyuni. The *Yama* is an affluent of the *Aima*. Bianconi's inset map reverses this; makes the Yama the main stream, Aima the affluent, and places the mission only 7 miles from the Yuruari. It may be said, however, that Bianconi's

[1] Qy. Jour. Sc. Lit. and Arts. 12 , London, 1820, Vol. IX, p. 11.
[2] Blue Book, Venezuela (1896) No. 3, p. 355.
[3] *Yama* of Arrowsmith, 1842.

map appears untrustworthy in its details. On the north bank of the Aima is *Colorado* mountain of Codazzi. A few miles above the mission Aima, Codazzi locates a village or settlement, *Santa Rosa* on the west bank of the Aima.

Some 7 or 8 miles above the Aima the Yuruari receives on its northern bank the waters of the *Carichapo*, a river 50 miles long, which heads on the divide separating the Caroni and Cuyuni basins just east of the sixty-third meridian, and in latitude 7¾° N. This place is at the extreme northwestern corner of the Cuyuni basin; it is distant 30 miles from the Caroni and 30 from the Orinoco. Near its source and on the right bank are the *St. John* mountains;[1] a few miles farther down on the same bank the *Carichapo* mountains,[2] and yet a little farther on the opposite bank, *Guacamaya*[3] mountain. The maps show no tributaries to nor settlements upon this river. Our anonymous traveler crossed it November 28, 1818, and reports it as a torrent "very steep and rocky. Being nearly dry, met with no difficulty, but at times it was necessary to swim it. This torrent runs southward into the Uruguare, which afterwards joins the Coyuni."[4] Eastward from the source of this river runs the crest of the *Piacoa* mountains, forming the northern rim of the Cuyuni basin, to their junction with the Imatacas at *Imataca*[5] mountain in latitude 7° 56′ N., longitude 62° 02′ W. Gr. and 2,340 feet high.

[1] *Cerro S. Juan* of Codazzi.

[2] *Cerro de Carichapo* of Codazzi.

[3] *Cerro Guacamaya* of Codazzi.

[4] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 13.

[5] *Cerro Imataca* of Codazzi, who gives a height of 852 varas; equal to 2,192 Paris feet (= 2,337 English feet), according to Schomburgk's physical map of 1846.

A little west of it in the Piacoa range is *Paisapa*[1] mountain 2,200 feet high, and 20 miles farther west, *Peluca*[2] mountain, 1,925 feet high. On the southern slope of this *Piacoa* range were the Capuchin missions *Cupapui*, *Santa Maria*, and *Palmar*. *Cupapui* was a Capuchin mission founded in 1733, and called *San José de Capapuy*.[3] On Cruz Cano's map, 1775, it is called *Capapui*; on Caulin's, 1778, the same. Arrowsmith, 1842, calls it *Capapuy*, while Codazzi and Schomburgk have *Cupapui*. The anonymous traveler of 1818 writes it *Cupapuy*. It had in 1799 a population of 886. It lies, as already stated, on the southern slope of the *Piacoa* mountains, which seem to keep out some of the ever present fever of the Orinoco. Our anonymous traveler says:

> The line of hills in which Upata and *Cupapuy* are situated, seems to have opposed a powerful, though not insurmountable, barrier to the contagion (fever). Southward of that line, it appeared in a very mitigated degree, and by no means so fatal. Northward, it had nearly annhilated the population.[4]

Santa Maria is about 10 miles east of Capapui, and

> stands upon a table land at the foot of a range of hills, separating it from Upata. It commands a most extensive and beautiful view. The plains on the south, lower than the level of Upata, are bounded by a more distant range of hills; those on the east stretch farther than the eye can follow.[5]

[1] *Cerro Paisapa* of Codazzi, and 800 varas high; *Paicapa* of Schomburgk, with elevation of 1,959 Paris feet.

[2] *Cerro Peluca* of Codazzi, and 700 varas high; equal to 1,801 Paris feet, according to Schomburgk's map of 1846.

[3] Blue Book, Venezuela (1896), No. 3, p. 355.

[4] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 24.

[5] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. VIII, p. 283.

It was the second mission founded by the Capuchins in these parts, and dates from 1730. It was called *Nuestra Señora de los Angeles del Yucuario*,[1] and had in 1798 a population of 540.[2] The name *Amaruca* on the Cruz Cano map, 1775, seems to be intended for this mission, appearing almost universally on maps as *Santa Maria*. Campbell visited the place in 1857. Having come up the Cuyuni, he journeyed across the savannas to the Orinoco, crossing the Piacoa mountains *via* Santa Maria, which he reached on the evening of October 21 Of his journey that day, ending with his arrival at Santa Maria, he says:[3]

Our way lay through a tolerably level savannah environed by mountains on every side. The height from the level of the savannah seemed to be from 1,000 to 1,500, or in some few instances, 2,000 feet. Toward afternoon we entered a ravine between these mountains, and commenced to ascend toward the old mission and puebla of Santa Maria. The path was in places very steep, and none but sure footed animals could mount it in safety. As we ascended we had most beautiful views of the savannah below and its surrounding mountains. * * * On reaching the summit of the pass, the ruins of the old mission were seen, on the top of a hill, commanding a magnificent view of the surrounding country.

From here to Upata over the range is some 10 miles.

Palmar lies about 20 miles east of Santa Maria. Founded in 1746, it was called *San Miguel del Palmar*. Its population in 1799 was 714.

Returning now to the Yuruari, we find the distance from the mouth of the Carichapo to the mouth of the Oronata to

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[1] On a sketch map of 1771 in the Capuchin archives at Rome it is called *Santa Maria y Enfermeria*. See accompanying atlas, map 73.

[2] Blue Book, Venezuela (1896), No. 3, p. 355.

[3] Timehri. 12°, Georgetown, 1883, Vol. II, p. 151.

be 15 miles, according to Codazzi, 5 according to Schomburgk. In this stretch is *Pastora*,[1] on the northern or left bank, an old Capuchin mission, founded in 1737 and called *Divina Pastora*. It contained in 1799 a population of 532; in 1803, 600. It is in the midst of a "fertile plain," where alternations of lofty forest and open savanna, abounding in deer and wild cattle, suggest a great park.[2] Pastora was the *Hato*, or breeding station, for cattle and horses of the old missions. Near Pastora the "rocky and rapid" Yuruari, with "limpid waters," is crossed by a ford 100 yards wide, with water up to the horses' bellies.[3] Opposite the mission, on the Yuruari's south bank, are the *Pastora* mountains—*Cerros de la Pastora* of Codazzi.

Oronata river, heading in the divide which separates the Caroni and Cuyuni basins, near latitude 7½° N., has a generally ESE. course across the savannas 40 miles, to its junction with the Yuruari. The maps show no tributaries and no settlements on its banks. Several peaks in the divide near its source are named by Codazzi. They are *San Juan*, *Panano*, *Mapurite* and *Oroituma*.

The *Sicapra* is a small stream 25 miles long, debouching on the south bank of the Yuruari about 5 miles above the Oronata. The maps show no tributaries to or settlements along it. A hill near its mouth on the eastern bank is, by Codazzi, called *Cerro Corona*.

From the mouth of the Sicapra to the source of the Yuruari

[1] *Pastora* or *Yarnaris:* Qy. Jour. Sc. Lit. and Arts. 12 , London, 1820, Vol. IX, p. 13.
[2] Qy. Jour. Sc. Lit. and Arts. 12 , London, 1820, Vol. IX, pp. 13–14.
[3] Qy. Jour. Sc. Lit. and Arts. 12 , London, 1820, Vol. IX, pp. 14–15.

is somewhat more than 50 miles. For the first 15 miles of this distance the course is westerly; it then bends around and continues a general southerly course some 35 or 40 more to its source near latitude $6\frac{3}{4}°$ N. On its western bank, 20 miles above the Sicapra and in latitude 7° 13′ N., is the old mission *Santa Clara*,[1] founded in 1779, containing in 1799 a population of 217 and in 1803 of 285. It is beautifully situated "in the hills" on a hillside, west of which are the woods and eastward the boundless plain. In 1818 it was all deserted but the residence, while the church was still unfinished.[2] Three leagues north of this was the old and small mission, *Puedpa*, "famous for nothing but the richness of its savannahs and number of wild cattle in its neighbourhood." Founded in 1769 and christened *Nuestra Señora de los Dolores de Puedpa*, it had in 1799 a population of 409, which is reported to have fallen in 1803 to 291.[3] Its aspect in 1818 is reported as "dreary." The maps leave it uncertain as to whether it is in the Caroni or Cuyuni watershed; published descriptions indicate the latter.

This completes our detailed account of the Cuyuni and its watershed.

Of the *Cuyuni* river as a whole it may be said that it is about 300 miles long, unnavigable, actively cutting down its bed, runs mostly through forests, is stained with an infusion of decayed vegetation, carries little sediment and so cuts slowly, is subject to wide fluctuations with the season, abounds

[1] Also called *Yaparapana* or *Santa Clara:* Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 17.

[2] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 17.

[3] Qy. Jour. Sc. Lit. and Arts. 12°, London, 1820, Vol. IX, p. 16.

in fish and alligators, drains, with its tributaries, an area of 23,500 square miles, of which 16,500 square miles are forested and 7,000 square miles are savanna. This savanna country consists chiefly of the drainage basin of the *Yuruari*.

THE MAZARUNI RIVER.[1]

This great tributary of the Essequibo is about 315 miles long, and has a singular course. Its source, on the Merumé table-land, in about latitude 5° 50′ N., longitude 60° 15′ W. from Greenwich, and at an altitude of 2,400 feet above the sea, is about 120 miles from its mouth "as the crow flies." As the river flows, however, neglecting minor windings, its length is nearly or quite two and a half times this distance. Flowing at first southeast, it then, with much winding, bends around to south, then west, then north, and at about 170 or 180 miles from its source is found flowing southeast again, parallel to its first direction. Here it is only about 15 miles northeast from its source, but is 2,000 feet lower. Among the numerous falls, especially of the upper river, *Chichi*, *Sericoeng*, and *Peaimah* are reputed to be the great ones. Its lower course is described as winding through a great level, tree-covered plain, while the upper part is more or less in canyons carved out of a mesa.

Almost all the geographic information we have respecting this river and its drainage basin is due to Hillhouse, who in 1830 ascended as far as the Merumé table-land, which he

[1] *Mazaroni* of D'Anville 1748, Bellin 1763, Tirion 1767; *Mazaroni* or *Ataparan* of Arrowsmith 1832; *Ataparan* or *Mazuruni* of Cruz Cano 1775; *Maceroni* of Dutch map of 1779, and Arrowsmith 1840; *Mazaronie* of Bouchenroeder 1798; *Massaroony* of Hillhouse 1830; *Mazaruni* of Codazzi 1840, and others, and probably *Maronony* of De Bry 1599 and *R. Maroto* of a still earlier Spanish map (accompanying atlas, map No. 76); *Mazaruni* or *Mazureng* (*Ataparan*) of Schomburgk's physical map, etc.

climbed, and to the geologists Brown and Sawkins. Hancock had ascended the river in 1801, but no account of his journey has been found. It was not visited by the Schomburgks, and their maps, copied largely from Hilhouse, show it far south of its place on the latest maps, which are based on Brown and Sawkins' work.

Brown started up the river September 9, 1873. He says:[1]

The object I had in view in undertaking this journey was to determine the actual geographical position of the *Mazaruni* river, which I found had been placed upon the map furnished to the Geological Survey far south of its true course.

Further on he says:

Before reaching the Puruni river I found that my surmises were correct, and that both latitude and longitude of the different cataracts were exceedingly incorrect. As we proceeded the error of course assumed gigantic proportions, till at Teboco, the most southerly point of the Mazaruni, between the 59th and 60th degrees of longitude, the river is actually some 40 miles to the north of the position marked upon the map. I need only remark that from that on to the source of the river the error never decreased in magnitude.

The geological map of Brown and Sawkins, therefore, and the Great colonial map, made up, as far as regards the Mazaruni, from Brown and Sawkins' work, represent the best map information now available as to this river.

We shall now supplement the map with such notes as may be gleaned from the few authors[2] who have published respecting it.

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[1] Brown and Sawkins: Reports on the Geology of Brit. Guiana. 8°, London, 1875, p. 256.

[2] Hilhouse: Jour. Royal Geogr. Soc., Vol. IV; Brown and Sawkins: Reports on the geology of Brit. Guiana, London, 1875, and Brown's Canoe and Camp Life, 2d ed., 8°, London, 1877. The work of Carl Ford, Unter der Tropen, Jena, 1871, has not been consulted.

As here considered, the Mazaruni is a tributary of the Essequibo, while the Cuyuni is a tributary of the Mazaruni. As a matter of fact, these two great and equal rivers, the Cuyuni and Mazaruni, unite at *Cartabo* point, and, flowing together for a few miles, pour their united waters into the great Essequibo, "brother of the mighty Orinoco." At its mouth the *Mazaruni* is 1½ miles wide. For 9 or 10 miles up it retains or exceeds this width and is free of all obstructions save a few islets near its banks. Siraut-Destouches' map of 1779 indicates both banks here as mountainous (bergachtig). Forests of greenheart and wallaba are indicated on its southern bank.[1] The general course of the river for 22 miles is WSW. to the mouth of the *Tupuru*,[2] a tributary on the north bank. Bending now a little more to south, the course is SW. for about 20 miles more, to the mouth of the *Kabani*, a tributary on the south bank. *Caria*[3] island is 10 miles up the river; "about three hours above the post," says Hillhouse.[4] He adds:

Here commences the distinguishing feature of the *Massaroony*—an innumerable string of islands, dividing the river into from five to ten different channels, without intermission, for fully a week's journey; in which space, the two banks of the river are scarcely once visible together, and one but seldom. *Caria* was once a Dutch post; and several plantations were formerly on the adjacent banks of the river, but the only traces of them now (1830) left are a few cocoa trees on the east shore. Above Caria, on a small island, is a Caribisce settlement of one family, which is the only one of that nation now left on the Massaroony. Here begin the rapids, the fourth of which, *Warimambo*,

[1] Great colonial map.
[2] *Virra* of Cruz Cano, 1775, and of Arrowsmith.
[3] So called by Siraut-Destouches, 1779.
[4] Jour. Royal Geogr. Soc., Vol. IV, p. 27.

is the most remarkable in this day's progress. The river is here three or four miles broad, and continues nearly the same breadth the whole length of the archipelago. At Warimambo, a large open space in the centre of the river has, in the rains, the appearance of a vast lake, and in the dry season, that of a ragged rocky plain.[1]

Brown, the geologist, in September, 1872, engaged in mapping the river, says[2] of this part of it:

From the head of the tide at *Curutuba* rapid (the first one, going up) up to *Turisie* (about 60 miles), which we reached on the afternoon of the 17th (he started from the penal settlement on the 9th), the river's course was impeded by cataracts and rapids, with still water between each; and so studded with tree-clothed islands that in no part of it could both banks be seen at the same time. The boatmen followed the main channel, and this led sometimes along the main land on one side, sometimes on the other, but chiefly amongst the labyrinth of islands and rocks which occupy the river's bed. These cataracts are not of a formidable nature, with but one exception, in *Yaninzaec* (a mile or two below the mouth of the *Kabuni*), where there is a short portage for luggage, of which we availed ourselves. The others we towed the boats up in the usual manner.

Just below *Caria* island, on the southern bank, is *East* cape, and opposite it *West* cape of Brown and Sawkins. Eight miles above Caria island *Ikuribisi*[3] creek, or river, flows in on the south bank.

The distance from Caria island to the mouth of the *Tupuru* is about 15 miles, and in this stretch the Great colonial map gives the following-named rapids and cataracts: *Curuturuba*[4]

[1] Jour. Royal Geogr. Soc., Vol. IV, pp. 27–28.

[2] Brown and Sawkins: Reports, p. 257.

[3] *Ecourybeesy* of Hilhouse; *Ikuribici* of Brown and Sawkins, and erroneously *Ikurisibi* of Perkins.

[4] Thus on Brown and Sawkins' geological map, but *Curutubu* of their text, p. 257.

rapids, *Marshall* cataract, *Kesterbrake*[1] cataract, *Warimambo* cataract, *Tarpe* cataract, *Crab* cataract, *Marepa*[2] cataract, and *Waipopekui* cataract.

In addition to the *seven* falls and rapids above mentioned as being below *Waipopekui*, Hillhouse mentions one more, *Arecara*. He says:[3] "In our first day's journey we ascended *eight* rapids" and bivouacked "on a wooded rock, between the *Arecara* and *Weyppopekay* falls." The second day's journey took him to *Cupara*, an Akawai settlement on the western bank. Another Akawai settlement, called *Aramatta*,[4] also on the west bank, was found some miles below Cupara.[5] His third day's journey brought him to the "fall of *Tepayco*," which is doubtless the *Tupacoo* cataract of Brown and Sawkins' map. This cataract, which may be written *Tupaku*,[6] is 40 miles up from the river's mouth. The rocks in its vicinity are schist and gneiss. For about 20 miles above, and the whole river below, the rocks on both banks are shown on Brown and Sawkins' map as granite and syenite. "*Tepayco*," says Hillhouse,[7] "is the first fall of the second great ledge of granite; and our third day brought us over this to *Sapeera*,[8] the foot of the third or *Caboomy* ledge." The name *Sapeera*, or *Sapeery*, does not appear on recent maps, except Richard Schomburgk's, where it is called *Sapira*. Of it Hillhouse

[1] *Hesterbrake* of Brown and Sawkins' map.
[2] *Maropa* of Brown and Sawkins' map.
[3] Jour. Royal Geogr. Soc., Vol. IV, p. 28.
[4] Jour. Royal Geogr. Soc., Vol. IV, p. 29.
[5] *Caparo* of Richard Schomburgk.
[6] *Tipaico* of Richard Schomburgk.
[7] Jour. Royal Geogr. Soc., Vol. IV, pp. 29–30.
[8] Also written *Sapeery*.

says:[1] "The *Sapeery* fall is a difficult one, but not to be compared with that of *Caboony*, which is full thirty feet high, in four different ledges." These falls, or series of them, which may be written *Kabuni*,[2] are doubtless those called *Yaninzaec* by Brown and Sawkins. Below them are *Parowacassie*,[3] *Towcoanie*, and *Mari*.[4]

Kabuni creek is an affluent of the Mazaruni on its south bank, 50 miles up from its mouth. Little appears to be known of it beyond its mouth, which Hilhouse entered in 1830. Perkins[5] in 1895 shows it as a gold district. Hilhouse mentions the *Piramappuh* fall "at this place," where he was obliged to portage.

From the mouth of the *Kabuni* to the mouth of the *Puruni* is *eighteen* miles according to geologist Brown. Hilhouse's sketch makes it about *fifty* miles, and Richard Schomburgk's map about *forty*. The general course of the river here is west, and it is still very wide, island-studded, and monotonous. One small tributary only is shown in this stretch, and that on the south bank. Hilhouse calls it *Epeeny* creek, Schomburgk *Ipini*, and Brown *Ocuma* river. This last appears to be a blunder which has been followed on the Great colonial map. The named cataracts on Brown and Sawkins' geological map, in this stretch are, in ascending order, *Paraquah* cataract,

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[1] Jour. Royal Geogr. Soc., Vol. IV, p. 31.

[2] *Caboony* of Hilhouse, 1830; *Cabuni* of Brown and Sawkins and Great colonial map; erroneously *Caburi* of Perkins.

[3] *Parawahassy* of Hilhouse and *Panawahassi* of Richard Schomburgk's map.

[4] *Mary* of Hilhouse.

[5] Perkins' (H. J.) Notes on British Guiana and its Gold Industry. fol. London, 1895, map.

Curahbele cataract, *Maecarie*[1] cataract, *Oucayway*[2] rocks a rapids, *Carawaramu* cataract, *Epikoreek*[3] cataract, *Itukie*[4] ca aract, and *Curahiri*[5] cataract. Between *Maecari* and *Oucayw* rapids Hilhouse and Richard Schomburgk show a fall call *Yark* or *York*.

Puruni river.[6] This stream is the most important and large tributary of the lower Mazaruni. Heading in what appea to be a low divide on the bench separating the lower Cuyu and Mazaruni drainage basins and nearly due south of *O mong* mountain and river, it maintains, despite much twistin a generally southeast course 70 or 80 miles to its junction wi the Mazaruni, which it joins on the north bank about 70 mil from the junction of that river with the Essequibo. Its midd course is a gold district.[7] The Mazaruni drainage basin w in 1892 constituted District No. 3 of British Guiana, the who colony being divided into five districts.[8] The gold yield fro the Puruni was, in 1892–93, 2,548 ounces, and in 1893–9 2,713 ounces.

By way of the *Puruni* and its main tributary, the *Cartu* one may pass from the Mazaruni to the Cuyuni. The distan from the Cuyuni to the Cartuni's head waters is about 15 mile

[1] *Macary* of Hilhouse; *Macaro* of Richard Schomburgk, and *Maccaru* of the Gr colonial map.

[2] *Ouaqway* of the Great colonial map

[3] *Epikreek* of the Great colonial map.

[4] *Itakie* of the Great colonial map; *Itaka* of Richard Schomburgk and *Etackah* Hilhouse's map *Itaka* means stone (Jour. Royal Geogr. Soc., Vol. VI, p. 225) this fall, which in his text he writes *Itachah*, Hilhouse says it "is a zigzag of fo turns, and not a few accidents have occurred here to the small craft of the Indian (Jour Royal Geogr. Soc , Vol. IV, p. 40).

[5] *Coorabeery* of Hilhouse

[6] *Puroony* creek of Hilhouse's map and *Punoony* of his text; *Carmen* or *Puruni* Richard Schomburgk and Codazzi; *Carmen* of Cruz Cano, 1775.

[7] See Perkins (H. J.) Notes on Br. Guiana, etc 2d ed. London, [1896].

[8] See Perkins (H. J.) Notes on Br Guiana, etc 2d ed London [1896], p. 9.

and over this stretch is a path through the woods. The distance from the head of canoe navigation on the *Cartuni* to the *Cuyuni* Sawkins[1] estimates at 22 miles and the highest point of the divide 320 feet. On this divide the rocks are granite, granular quartz, syenite, and trap. The Cartuni and Puruni were descended in September and October, 1868, by Brown and Sawkins,[2] and to them are we indebted for substantially all that we know of the geography of this region.

The *Cartuni*[3] river, as already mentioned, is the main affluent of the *Puruni*. It is a small stream about 25 miles long in thick forest, and, as usual, is much blocked by fallen timber, lying above and beneath the water. "These large dead trees," says Brown,[4] "are called *Tacoobas* and are the curse of narrow rivers." The waters of the *Cartuni* are turbid. Near its source is a swampy tract. The banks are generally low, composed of red, white, yellow, and mottled clay, with sand.[5] To this river and the geology along it Sawkins devotes a few paragraphs. The names of features as they appear on the map and in the text do not agree. The tributaries on its northern bank are as follows:

Map.	*Text.*
Parewara.	Waini.
Curapara.	Maimaraparu.
———	Curaspara.
Cromepara.	Cariar.
Temoreng.	———

[1] Brown and Sawkins: Reports, p. 45.

[2] Brown and Sawkins: Reports pp. 45–47, and Brown's Canoe and Camp Life, pp. 34–51.

[3] *Mapa-aima* of Richard Schomburgk; *Cartoonie*, *Cartoonee*, and *Cartuni* of Brown and Sawkins; *Cartoonie* of the Great colonial map and of Perkins. Preferably it should be written *Kartuni*.

[4] Canoe and Camp Life, p. 43.

[5] Brown and Sawkins: Reports, p. 46.

And on the southern bank:

Awendaparu.	Pakiamparu.
Tumeng.	Tineparu?
———	Tuvastimpi.
Accourou.	Maraparu?
———	Tariparu.
———	Tapara.

Near the head is Mount *Wahtope* and in the lower course the *Marehughi* cataract, neither of which is described. Near this cataract, on the upper side, "hydro-oxide of iron occurs, forming a soft rock with blackened surface; also diorite, trap, and greenstone." Two Indian villages are noted near its head waters, *Cartoonie* and *Ositiquah*.[1]

Twelve miles up, from the Pururni mouth, is a prominent hill on the north bank which Brown and Sawkins ascended October 8, 1868. Of this hill Sawkins says:[2]

We walked up a hill on the north shore; the ascent is rather steep, being on an average 30 degrees at an elevation of 600 feet. I found the trending of the ridge NE. and SW.

Of this same visit Brown writes:[3]

We landed at a hilly range abutting on the river, and ascended it to a height of 800 feet above the sea. The foliage of the magnificent trees, with which it was crowned, obstructed our view of the surrounding country; but through gaps here and there we obtained glimpses of high ranges, looking of a pale-blue color, in the distance to the westward.

This hill or ridge is nameless.

Of the Pururni above the mouth of the Cartuni apparently

[1] Erroneously *Ositiqah* on the maps.
[2] Reports, p. 46.
[3] Canoe and Camp Life, p. 46.

nothing is known. It appears on all the maps as a mere sketch. Sawkins' plan[1] to explore it was defeated by the refusal of his Indians to accompany him; they said they were at enmity with those dwelling there.

Just after the turbid waters of the *Cartuni* have joined the clear black waters of the *Puruni*, the mingled waters fall almost perpendicularly over a mass of jointed greenstone, forming a low but picturesque fall named *Pyuca*. Here is a portage where canoes are dragged over the rocks some 60 yards.[2] Sawkins says[1] these falls are one-quarter of a mile below the junction of the Cartuni and Puruni, are divided into three different streams, and that the rock barrier is composed principally of trap. *Ombarra* creek enters the Puruni from the north[3] a little below these falls, and the hills *Ruminga* and *Warupina*, a little below, form the south bank. Just below these on the south bank is *Curaparu* creek, nearly opposite which *Homeparu* creek, of Sawkins' map, falls in. Perhaps this is the *Gasparupa* of his text.

Twelve miles farther down *Maramara* river or creek falls in from the north, and the river now bends around to the south. It is at this point that the *Puruni* passes through a ridge trending northeast and southwest, and about 600 feet high. In the 12-mile stretch in or through this ridge the Puruni is tortuous and receives numerous small streams which Sawkins mentions in his text, such as *Aswara*, *Gangrooma*, *Langoomau*,

[1] Reports, p. 46.
[2] Brown's Canoe and Camp Life, p. 47.
[3] Erroneously from the *south* on the Great colonial map.

Cabili, *Humaribaro*, *Paraani*, none of which are named on his map.

Between the Puruni's mouth and the unnamed ridge above mentioned, some 25 miles upstream, we have the same story, numerous streams are named in the text which do not appear on the map, and vice versa. We have on the map *Puruna* river, *Sacarauca* mountain, *Acotura* river, *Voca*[1] cataract, *Wahmalla*[2] village, *Turubengeng* river, and *Puriari* river. In the text we find *Uricon*, the "highest hill," *Runa* creek, *Sacarhouriki* hill, *Tacuparu* creek, *Maritote* rapids, *Alabamaloo* rapids, *Huamata* (?=*Wahmalla*), *Taparu* island, *Presatu* rapids, *Cubangau*, *Ourasassartur* rapids, and *Puriari* creek.

This gives such confusion that we dimiss the Puruni with one or two general statements. It seems to run its course, in general, through a low bench country. The falls and rapids appear few and inconspicuous save near its mouth, where, between hills rising on either side from 150 to 200 feet, it plunges over the "great" cataract and joins the Mazaruni. Brown,[3] describing this part of the river, says:

> We passed over a portion of river where it flowed through a hilly tract of country, and obtained some fine views of wooded hills, varying in height from 500 to 800 feet. We also ran down some small rapids, which was rather dangerous work in our frail canoes. The river occasionally received the waters of a small tributary here and there, and gradually widened out to 60 yards. Its water lost its black cast as we proceeded, and at last became quite turbid, flowing in an exceedingly tortuous course.

[1] *Waka* of Great colonial map.
[2] *Wahmatta* of Great colonial map.
[3] Canoe and Camp Life, pp. 50–51.

As to the *Puriari*[1] creek, or river, an affluent of the lower Puruni, it was so low and timber-clogged that Sawkins in 1868 abandoned his project of ascending it. We are still without any definite information concerning it.

Having now completed our detour up the Puruni, we will resume our ascent of the Mazaruni, which, for some 15 miles above as well as 60 miles below the Puruni, wanders about between low, far-apart, but distinct banks, through a bewildering maze of islets. "Through this labyrinth of the islands, on comparatively still water, it is difficult," says Sawkins,[2] "to determine that the pilots are not going down stream instead of up it."

In this stretch the river makes a long curve, bending from west around to south, and then, at a point a mile or two above *Turisi* cataract, turning sharply to west again. There are several cataracts and numberless islets hereabouts. Two small streams, the *Couraibulli*[3] and *Apotoacuru*,[4] fall in on the north bank, and two others, the *Takie*[5] and *Ockuwa*,[6] on the south bank.

Cowenamou, or *Cowenamo* of Brown and Sawkins, is a *village* on the southern bank of the Mazaruni, nearly opposite the mouth of the Puruni. Here Brown and Sawkins appointed a rendezvous for uniting their separated parties. The village is about a mile and a half from the river, on a level place

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[1] *Puriarry* creek of Hilhouse, 1830, and erroneously *Puruni* of Perkins, 1895.

[2] Brown and Sawkins: Reports, p. 47.

[3] In this vicinity Hilhouse shows three streams, *Masseweny*, *Samoory*, and the third unnamed.

[4] *Ebodiacrew* creek of Hilhouse.

[5] *Teckle* of Hilhouse.

[6] *Ocoowa* creek of Hilhouse.

200 feet above sea level. The ascent is gradual along a well-beaten path, and the village consists (or did in 1868) of 4 houses, 22 people, an assortment of mangy dogs, and numerous fowls; it is in a little clearing where the sand was ankle deep.[1]

Pacapocu[2] and *Cabowera*[3] are two cataracts of seeming small importance, while about 8 miles up from the *Cowenamou* landing is *Cartowerie*, a large cataract, "produced by gneissose syenite." Here the geologist Brown in 1868 witnessed the capture by the Indians of a large number of fish (*Pacu* and *Cartabac*) by poisoning the water[4] with *Haiari* (*Lonchocarpus densiflorus*). Hillhouse witnessed such a fish-poisoning scene in 1830, and describes it in the Journal of the Royal Geographical Society, Vol. IV, page 30. He also gives a picture of it in the same volume. Up to this vicinity the Mazaruni was explored in 1829 by a Mr. McKay in search of *Siwabally* timber. Hillhouse, followed a year later, and on reaching this place, says here "commenced the *terra incognita*."

About 4 miles above *Cartowerie* cataract is *Turisi*[5] cataract, where, for a short distance both above and below, the full width of the river can be seen. A dyke of greenstone 100 yards wide crossing the river in an east-west direction makes this cataract.[6] Just above Turisi cataract is an *east and west*[7]

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[1] Brown's Canoe and Camp Life, p. 52.

[2] *Pacapaca* of Great colonial map.

[3] Also spelled *Cabowara* and *Cabowaro* in Brown and Sawkins' Reports, pp. 276, 277. Near here occur 3 dykes of greenstone in gneiss.

[4] Canoe and Camp Life, pp. 57–59.

[5] *Turesie* of Great colonial map; *Turisie* of Brown and Sawkins: Reports, p. 257.

[6] Brown and Sawkins: Reports, p. 272.

[7] WSW. and ENE. according to Brown: Canoe and Camp Life, p. 61.

reach of the river some 10 miles long. In this reach, says Brown,[1] "though passing a small island at long intervals, the river was remarkably free from obstructions, with both banks in view. Heavy forests lined these, the undergrowth encroaching on the water." In this reach *Marabisi*[2] creek or river falls in on the north bank. Hilhouse, who slept for one night "a little above" the mouth of this creek, says of this part of the river:[3]

It is hardly possible to describe the relief to the feelings we experienced on emerging from the everlasting confusion of islands and narrow passages into, once more, the open and placid Massaroony, which from this point again took a westerly turn, with scarcely a single curve in its course. It had the appearance of an immense inland lake; and Arthur's Table, at an apparent distance of about sixty miles, was a treat to a Demerarian, who had seen nothing for years but the dead levels of the coast. We did not get access to this mountain, but, by comparison with the part of the chain we afterwards scaled, it must be five or six thousand feet above the level of the sea.

Of this mountain, *Arthur's Table*, Hilhouse gives a sketch or view, showing it as a precipitous cliff, and on his map he locates it a few miles east of *Illuie* peak of later maps. It appears to be, beyond doubt, the northeasternmost edge of the great bench on which the Mazaruni rises, this high bench being called by Hilhouse *Mountains of St. George*, and constituting the eastern part of the *Merumé* mountains or plateau. A few miles west of Arthur's Table, Hilhouse locates a mountain which he says "we christened *Raleigh's Peak.*"[3] On the Great colo-

[1] Brown and Sawkins: Reports, p. 257.
[2] *Muribisce* creek of Hilhouse's map.
[3] Jour. Royal Geogr. Soc. Vol. IV, p. 32.

nial map this is called *Illuie* peak, while another peak about 25 miles southeast from it is called *Raleig's* peak. This last peak is on the divide between the Mazaruni and Curiebrong drainage basins. The native name of Hilhouse's *Raleigh* peak is *Illuie*. Of this Brown says[1] it is "a table-topped mountain, shaped somewhat like the roof of a house with sloping gable ends, with a lofty conical peak of double its height rising behind." Hilhouse says of it,[2] "We had, at intervals, a glimpse of a table-mountain, due south, with a conical peak, at the north extremity, extremely like the crater of a volcano; it was equal in height to Arthur's Table, and we christened it Raleigh's Peak." In the open stretch of river just above *Turisi* cataract a fine view is opened up, "disclosing, in the far distance, the northern escarpment of the sandstone mountains lying to the south of the Mazaruni, from which two high bluffs jutted out."[3] These two bluffs are doubtless *Arthur's Table* and *Illuie* peak.

In the open stretch of water, above *Turisi* cataract, *Marabisi* creek, as already mentioned, falls in on the north bank. Just below it on the opposite bank falls in *Issano*[4] creek, or river, and a little above, also on the south bank, falls in *Warappa* creek of Hilhouse. The *Issano* may be ascended a short distance in canoes to a landing on the west bank, whence a forest path, 2 miles long, leads to an Indian village called *Peaquah*.[3] Just above the open straight stretch above mentioned a short range of low hills lie across what would be the Maza-

[1] Brown's Canoe and Camp Life, p. 63.
[2] Jour. Royal Geogr. Soc., Vol. IV, p. 32.
[3] Brown's Canoe and Camp Life, p. 61.
[4] *Issano* R. or *Waiaino* of Great colonial map.

runi's straight course and produce a great oxbow nearly 20 miles in extent. The eastward flowing river is deflected rather sharply to south for some 8 miles, when it turns abruptly to the eastward, and after 2 or 3 miles turns abruptly north again; and finally, after a northward course of some 6 or 7 miles, again turns eastward. Numerous islets appear in this oxbow. Into what may be called its southeast and southwest corners flow the *Semang* and *Karanang* rivers from the south. Between their mouths and near the middle of the oxbow is *Teboco* cataract, or fall, where "the river narrows to one-third its usual breadth, but widens again immediately after."[1] The northern bank is here a bluff point.[2] Hillhouse calls *Teboco* the thirty-fourth and last fall. (He was ascending the river.) Boats have to be portaged here. Above the falls, are numerous rocks and rocky islets, while the banks, half a mile apart and sometimes both visible at once, are lined with magnificent mora trees.

The ridge of hills which here deflects the Mazaruni was, by Hillhouse, called *Heights of Teboco.* Brown and late writers call them *Karanang*[3] hills. In his report, pages 257–258, he says "the long tongue of hills here is called *Karanang*, and averages about 500 feet in height."

As to the *Semang*[4] and *Karanang*,[5] Brown calls them "large streams * * * coming off the mountains to the

[1] Hillhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 32.

[2] Brown's Canoe and Camp Life, p. 63.

[3] Erroneously *Kariming* on Great colonial map, which retains the name *Heights of Tebocu (sic)* for a group just north.

[4] Semang *creek* of Hillhouse, 1831.

[5] Caranang *creek* of Hillhouse, 1831, and erroneously *Karamang* of Great colonial map, and of Brown and Sawkins' geological map.

south."[1] Neither of these considerable streams appear to have been explored. Hilhouse shows the Semang as a short stream without tributaries, while the Karanang is shown as having on its western bank a large tributary called by him *Marybyacrew* creek, heading near cliffs of the same name. Late maps omit this name and stream, and give to the Semang an unnamed tributary.

On the north bank of the Mazaruni, some 8 miles below the Teboco cataract, Hilhouse "breakfasted at a small settlement called *Keaquay*.[2] On his map he shows *not* a settlement, but a peak—*Keaquay*—which on the Great colonial map is called *Peak of Kakwai*.[3] Beyond the oxbow around the *Karanang* hills the Mazaruni has a course about WNW. nearly 20 miles, to the mouth of the *Merumé*. It is here a broad expanse of river about half a mile wide,[1] and full of sand shallows at low stages. It here runs nearly parallel to the great sandstone escarpment on the south, which is from 6 to 12 miles distant. This escarpment, called by Hilhouse *Marybyacrew* cliffs, and *Marabiacru* by later writers, is the edge of the great table or sandstone platform of the upper Mazaruni. Hilhouse gives several sketches of these cliffs.[4] At the point on the river where these *Marabiacru* cliffs become visible Hilhouse mentions *Aramayka*, presumably a native village, beyond which, half a day's journey, is *Abadakaye*, the last settlement on the river until one reaches

[1] Brown and Sawkins: Reports, p. 258.
[2] Jour. Royal Geogr. Soc., Vol. IV, p. 32.
[3] Erroneously *Kakeri* on Perkins's map, 1896.
[4] Jour. Royal Geogr. Soc., Vol. IV, map.

Apeng creek. Neither of these names have been found on any map. Of the great escarpment *Marabiacru* Brown says:[1]

Passing along, day after day, we could see the edge of the great table land on our left, rising to a height of over 2000 feet above the intervening forest-covered plain, with pinkish and gray precipices here and there, and huge wooded bluffs at intervals. From the end of one of these rose a curious pinnacle of rock, to which the Indians have given the name of *Caribisi*. They have a tradition that years ago a Carib ascended the slope of the bluff to hunt and, for reasons not satisfactorily explained, was suddenly turned to stone. * * * It did not require this melancholy tradition to give a charm to these grand mountain escarpments, with their deep glens and mysterious valleys, their frowning precipices, castellated tops, and tree-clothed slopes, for they looked weird enough without any such adjunct. These mountains are known by the general name of *Merumé*, but to striking portions of different parts the Indians have attached other names.

Speaking of this same escarpment, Hillhouse says[2] the cliffs are about one thousand feet high, with perpendicular northern faces. A remarkable detached peaked rock, on the west face of the cliffs, is called the *Caribisce*. The legend says, it is a man of that nation turned into stone for attempting to scale the cliffs.

In the 15 to 20 mile reach between the oxbow at the *Karanang* hills and the mouth of the *Merumé* river the Mazaruni receives six small affluents, three from the north and three from the south. All are small and but one has a name. This is *Catoparu* of the Great colonial map, and *Catopara* of Brown and Sawkins' map, a name evidently from Hillhouse, who calls it *Katoparu* creek. It is on the south bank. On the

[1] Canoe and Camp Life, p. 66.
[2] Jour. Royal Geogr. Soc., Vol. IV., p. 33.

north bank of the Mazaruni hereabouts is a low cluster of hills crowned by a curious high dome of rock called *Sororieng;*[1] i. e., *Swallow-nest*, from *sororí*, swallow, and *eng*, nest. It is a light-colored, sugar-loaf hill rising high above the surrounding forest-covered country. Between it and the river is the village *Sororieng*, three miles from the bank. The peak appears to be that which Hillhouse calls peak of *Rumuriman*, and of which he gives a sketch.[2] Brown also gives a sketch of Sororieng.[3]

The Merumé river is a short but rather large stream, "almost 100 yards in width at its mouth," which, rising on the high table near the sources of the Mazaruni, runs northward and plunges over the edge of the high cliffs, descending more than 2,000 feet in a short distance. The geologist Brown descended this river in November, 1872. Crossing the head waters of the Mazaruni at an elevation of 2,315 feet where it was but 6 yards wide and flowing eastward, he walked northeast over ground "dreadfully rough, being up and down gullies and across hills and streams," and in one and one-third hours reached the brink of the Merumé escarpment at a height of 2,353 feet above the sea.

From this commanding height "the great level tree-clothed plain, through which the lower Mazaruni winds," is spread out before the traveler. To reach it one must scramble down the steepest of slopes, and some cliffs which can only be scaled by ladders, for some 2,000 feet to the level plain below, about

[1] Brown and Sawkins: Reports, p. 258; Brown's Canoe and Camp Life, pp. 66–7.
[2] Jour. Royal Geogr. Soc., Vol. IV, map.
[3] Canoe and Camp Life, p. 382.

260 feet above sea level.[1] The great cataract of the Merumé can be seen from the Mazaruni. Hilhouse guessed its height to be 1,200 feet.[2]

The course of the Merumé is tortuous and, according to the Great colonial map, it receives seven tributaries, five on its right or eastern bank and two on the opposite bank. Of the eastern tributaries one, debouching about a mile from the Mazaruni-Merumé junction, is called *Massanapa* river. Another of the eastern tributaries is the *Warongabong*[3] of Brown, who, slipping from a log, got a ducking in this swollen stream. All the other tributaries are unnamed except one on the north bank called *Appakai*.[4] We have no particulars respecting any of these streams.

From the mouth of the Merumé, which appears to be exactly in longitude 60° W. Gr. and 8 miles south of the sixth parallel of north latitude, the Mazaruni has a tortuous course to the northwestward about 30 miles, to the mouth of the *Apeng*,[5] a prominent tributary on its south bank. The great escarpment on the south bank, being the edge of the Merumé plateau, approaches nearer the river and is crowned with higher blocks, apparent survivals of erosion. One of these is called *Camacusa*[6] mountain, the other *Ayangcanna* mountain.

Brown in his Canoe and Camp Life, page 390, describes

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[1] Brown's Canoe and Camp Life, pp. 397–398; Brown and Sawkins: Reports, p. 265.

[2] Jour. Royal Geogr. Soc., Vol. IV, p. 33.

[3] *Warongong* of Great colonial map.

[4] *Appacai* of Brown and Sawkins' geological map.

[5] *Apeng* of Brown's Canoe and Camp Life, p. 71, et passim; *Ehping* of Hilhouse, and *Aping* of Great colonial map.

[6] *Camacuca* of Brown and Sawkins' map.

Ayangcanna as a "huge mountain forming a most singular picture." He says:

The word Ayangcanna rendered into English means "Lice searchers." It has got this disagreeable name from a row of huge pointed rocks on its crest which are sharply defined against the sky, and to the Indian eye resemble a row of women seated one behind the other searching each other's head for vermin, a custom very prevalent amongst all Guiana tribes. The upper five hundred feet or so of the mountain is within the region of fleecy white clouds which, in passing, completely enveloped the top.

Between the mouths of the Merumé and Apeng rivers the distance along the Mazaruni is about 40 miles. In this stretch four streams fall in on the south bank, coming from the great Merumé plateau. The first is unnamed, but as it comes from *Camacusa* mountain and has on its southern bank two native settlements, one of them called *Camacusa* village, it may be called *Camacusa*. The others are *Merewye*,[1] *Ceraquiparu*, and *Coroweiurru*.[2] On the opposite or northern bank also four streams fall in, two unnamed, the others called *Cabeparu*[3] and *Tawi-ikwia*.[4] Between these two is the native settlement *Ouranapai* "on a raised level tract of sandy ground."[5] The 40-mile stretch of the Mazaruni hereabouts seems to be wholly free from rapids and falls and has few islands, but five being indicated. Sawkins mentions one rapids called *Ouranapai* produced by a dike.[6] The high escarpments on the southern bank and the lower bluffs on the northern bank are here gradually approaching the river as one ascends.

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[1] *Merewyo* of Brown and Sawkins.

[2] *Corowa-aikura* of Hilhouse: Jour. Royal Geogr. Soc., Vol. IV, p. 34.

[3] Perhaps this is *Kimurimun* of Hilhouse.

[4] Perhaps this is *Maboouru* creek of Hilhouse.

[5] Brown's Canoe and Camp Life, p. 67.

[6] Reports, p. 49.

The *Apeng* is indicated as one of the chief affluents of the middle Mazaruni. It heads on the great Merumé plateau and flows NNE. along the western edge of the *Ayangcanna* mountains. It is shown as 15 miles long, nearly straight, and without tributaries. It seems to be unvisited and practically unknown. Hillhouse shows it as somewhat tortuous, and calls it *Ehping*[1] creek. From *Corowa-aikura* creek of Hilhouse to this stream is a day's journey. The Mazaruni is here "not more than four or five hundred yards broad, and is full of sand, but with very few rocks."[1] Near the mouth of the *Apeng* is an unnamed native settlement, and on the opposite bank of the Mazaruni another.

From the Apeng to the Carabung the Mazaruni has a generally WNW. course for 11 miles, and receives but one insignificant tributary. This is on its north bank and is nameless. An island is shown at its mouth.

The *Carabung*[2] is one of three principal tributaries of the Mazaruni between its great bend at *Peaimah*[3] falls and the ox-bow at the *Karanang* hills. It was explored by the geologists Brown and Sawkins[4] in November, 1868, and by Hillhouse[1] in 1830. It is a tortuous, "transparent, chocolate-colored" stream, some 25 miles long, rising on the plateau in the great bend of the Mazaruni, at an elevation of about 2,600 feet, near the sixth parallel of north latitude. It runs northeast over

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[1] Jour. Royal Geogr. Soc., Vol. IV, p. 34.

[2] *Corobung*, *Coorobung*, and *Cooruboong* of Hilhouse, 1830; *Carabung* of Brown; *Carabung* and *Carubung* of Brown and Sawkins.

[3] *Peaimah* and also *Piamah* of Great colonial map and of Perkins. Erroneously *Peiamah* on maps 1–15 of accompanying atlas.

[4] Reports, p. 49; Brown's Canoe and Camp Life, pp. 71–85.

the edge of the escarpment, and plunging down through the gorge it has carved out, winds peacefully and writhingly along in its lower course at an elevation of about 175 feet. Canoes can ascend it[1] for about 11 miles to *Macrebah*[2] fall. a "very picturesque one," says Brown,[3] "where an extensive development of conglomerate occurs."[1]

Hillhouse thus describes this stream from *Macrebah* fall to its mouth:[4]

The water of the creek, though perfectly transparent, is a deep chocolate color; and the sands are reflected in it, of a bright claret or purple. The creek winds about in the most opposite directions; and at every turn, a large and bold spit of white sand projects, which contrasts most unpleasantly with the surrounding water. There is uniformly no middle ground for the landscape; but from the dark and still creek, with its uniform fringe of trees, starts up, as if by magic, a perpendicular cliff, of one thousand or fifteen hundred feet; which you know is distant, but which you feel as if in your most dangerous proximity; and, as you see all around you detached masses, apparently torn from these gigantic walls of nature, you expect every moment to see one of them blocking up the creek before you or cutting off your retreat. Every two or three hours you come to an immense block of granite, to pass which you have a channel barely wide enough for your craft; then the channel widens to one hundred and fifty yards, and you are in a claret-colored lake, so shallow that you can scarce swim. At the very last, you enter a capacious basin, as black as ink, surrounded by a bold extensive sand, as white as chalk; and you hear a fall of water before you, but perceive no current, though there is a foam like yeast on the surface, which remains the whole day without any visible alteration.

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[1] Brown and Sawkins: Reports, p. 19.

[2] *Macrebah* of Hillhouse.

[3] Canoe and Camp Life, p. 78.

[4] Jour. Royal Geogr. Soc., Vol. IV, p. 34.

On a more attentive examination, you perceive at a distance a broken white line struggling through a cluster of granite rocks, at the base of two quartz cliffs, of a mixed character; and this is the fall of *Macrebāh.*

To Hilhouse this fall did not, at first, appear to be more than 4 or 5 feet high, but on the following morning he changed his mind. He says:[1]

We proceeded to measure the fall, by the simple experiment of placing Indians on the different ledges, with the feet of one on a level with the head of another. In this way we were nearly half an hour in scrambling to the top, and twenty Indians, or about one hundred feet, was the real height of what from below appeared so trifling. But even here, at the very top of the fall, the stream ran principally in subterranean passages—the bottom of the masses of granite being worn so much away, that the tops projected and hid the watercourse from view.

Brown and Sawkins[2] in 1868 found, by barometer, the elevation above sea level of this fall to be—

	Feet.
Foot of Macrebah fall	175
Top of Macrebah fall	357
Height of fall	182

The rocks of the lower *Carabung* are syenite, granite, ironstone, conglomerate, and sandstone. Talcose schist, containing small veins of graphite, occurs at its mouth, while fine-grained green clay and also yellow ochre occur either on its banks[3] or on the banks of the Mazaruni near by. Several small streams join the Carabung below the falls, of which

[1] Jour. Royal Geogr. Soc., Vol. IV, p. 35.
[2] Reports, p. 23.
[3] Brown and Sawkins: Reports, p. 49.

two only bear names, namely, *Saganang* on the west, and *Curruquah* on the east. A larger stream, the *Seroun*,[1] joins the Carabung on its left or western bank just below Macrebah fall. Along the south bank of this affluent runs a path, "the worst I ever saw," says Hillhouse, and by which, up a 45-degree slope, he scrambled with great difficulty to *Coomarou*[2] fall, where the *Seroun* runs over the edge of the level granite table land to plunge into the Mazaruni basin below. Brown and Sawkins, in 1868, started up this same trail in the Seroun valley to reach the upper Mazaruni. For this purpose they kept more to the left, and thus did not go to *Coomarou* fall. Brown describes the climb by which he reached the plateau by way of the *Carabung* and *Seroun* valley. Leaving a fine sand beach where they were in camp at the junction of the Seroun and *Carabung*, he says:[3]

We commenced our arduous journey by a climb of 963 feet along the sloping side of the mountains forming the eastern side of the Seroun valley. As the path did not lead straight up the mountain at first, but up and down, over spurs, we had to make a long journey before reaching the top of the table-land, and had some steep ascents to perform. * * * The top of the mountain was an almost level plateau, covered with a very different vegetation from that of the plain below, the trees being small, and chiefly of a kind called Bartabally. * * * Our route lay south, along a rough path leading over the almost level table-land, and across many small streams (these appear to be tributaries of the upper *Carabung*) till 2 P. M., when we ascended a small escarpment of a greenstone layer, covered with deep red soil, where a taller and better growth of trees flourished. * * *

[1] *Seroon* creek of Hillhouse.

[2] So Hillhouse; *Courmaroo* of Great colonial map.

[3] Canoe and Camp Life, pp. 78, 79.

Late in the afternoon we camped on the borders of a small stream of dark water, at a height of 1480 feet above the sea, having started in the morning from a level of 175 feet.

The trail followed by Brown and above described is the one used by the Indians to reach the *Cako*,[1] a stream which heads near *Mount Roraima* and flows into the upper Mazaruni.[2]

The elevation of 175 feet from which one starts up the *Seroun* valley is that of the base of *Wataparu*[3] mountain, a precipitous cliff and plainly the lower edge of the Merumé plateau on the southeast bank of the *Carabung*. A little below another spur of the same escarpment is called *Morokina*.[4] The Great colonial map indicates this last as 2,000 feet high. Another cliff near here is called by Brown and Sawkins[5] *Curumina*, but the name does not appear on any map.

CONCLUSION.

Here these notes abruptly stop, unfinished. For their completion, as planned, it remains to—

(*a*) Complete this description of the Mazaruni and its drainage basin;

(*b*) To describe the great mountain system of central Guiana, together with the head waters of the streams flowing southward therefrom;

(*c*) To describe the Essequibo and its western tributaries;

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[1] A native word meaning *Jasper*.

[2] Brown and Sawkins: Reports, p. 49.

[3] Brown and Sawkins: Reports, p. 49. *Waterbarru* of Brown, and *Waterbaru* of Great colonial map.

[4] Brown and Sawkins: Reports, p. 49; *Morokima* of Great colonial map.

[5] Reports, p. 49.

(*d*) To describe the northern bank of the lower Orin with its tributary streams, together with the northern wa shed of the Imataeas;

(*e*) To describe the tract lying between the savannas of Yuruari and the Caroni and Orinoco; and finally

(*f*) To prepare a series of maps to accompany this t maps of such character and on such scales as to render whole clear and easy both to follow and understand.

Lack of time has prevented this, as it has also prevented bringing of the whole into a uniform and proper arrangeme The following index of place names will, however, carry inquirer to the pages where the information herein contain touching the matter of his inquiry, can be found, while footnotes will carry him yet further back to the origi sources of information. For a ready and easy understand of these geographic notes, they should be read or studied connection with a detailed map. They are designed as a s plement to and not as a substitute for the maps. The l existing single one for the purpose is the Great colonial m a part of which is reproduced on a reduced scale as No. of the accompanying atlas.

NOTE RESPECTING THE AMOUNT OF TERRITORY LYING BETWEEN THE ESSEQUIBO RIVER AND VARIOUS PROPOSED OR CLAIMED BOUNDARY LINES.

The following areas were measured with a planimeter upon an unpublished photolithographic map made for the Commission in March, 1896, and entitled "*Map of the region lying between the Essequibo and Orinoco rivers, South America—scale 16 miles to one inch.*"

The planimeter measures are accurate within about one per cent. The areas are expressed in square miles (English statute). The figures given show the areas included between the fifth parallel of north latitude, on the south, the Essequibo river (middle of), on the east, the Atlantic ocean, on the north, and various proposed or claimed boundary lines, on the west. The boundary lines were drawn, on the above mentioned map, from data in the Blue Books, Venezuela (1896), the Great colonial map, etc., as specified below. These measures were made in June, 1896, and at the request of one of the Commissioners.

Date.	Line.	Authority.	Area.
			Sq. miles.
1844	Fortique	Blue Book, No. 1, pp. 249, 251	.....
1844	Aberdeen	" " " p. 254	29747
1875	Schomburgk	Great colonial map—original	27638
1880	Extreme British claim	Blue Book, No. 1, p. 295	53248
1880	Same	" " " map, p. 413	55563
1881	Rojas	" " " p. 299	17047
1881	Granville	" " " p. 301	36180
1887	Schomburgk	Great colonial map—amended	36988
1890	Salisbury	Blue Book, No. 1, pp. 413, 433	45108

If we neglect the odd figures, as we may safely do by reason of the known inaccuracies of the maps, and arrange, not chronologically but in the order of size, we have as follows:

		Area.
		Sq. miles.
1	Fortique, 1844	Nothing.
2	Rojas, 1881	17000
3	Schomburgk line, as published, 1875	27600
4	Aberdeen, 1844	29700
5	Granville, 1881	36200
6	Schomburgk line, as published, 1887	37000
7	Salisbury, 1890	45100
8	Extreme British claim, 1880	53200
9	Same 1880, as shown on map, Blue Book No. 1, p. 413	55600

It thus appears that **55 000 SQUARE MILES** is, approximately, the area of the district lying north of the fifth parallel of north latitude, to **WHICH** both **VENEZUELA AND GREAT BRITAIN** lay **CLAIM.**

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Wókah	294
Wokapoa, creek and lake	283
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Wommipong cataract	304
Womuipong portage	305
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Wykoo (*sun rock*)	328
Yabritin river	240
Yacami rapid	319
Yackariwa cataract	305
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Yakiri river	238
Yama river	332
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Yanecuru river	297
Yane-Kura river	297
Yanekuru creek	297
Yaninzaec cataract	341, 343
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Yarikita river	234
Yark fall	344
Yarnaris mission	336
Yarumuku river	240
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Yessiatabo creek	277
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Ymataca, Serrania de	227
York fall	344
Yuanrare river	327
Yuarnare river	327
Yupotte river	240
Yuricabara river	234
Yuruamo river	323, 324
Yuruan, British post	319
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Yuruari drainage basin	324
Yuruari river	321, 326, 327, 330–338
Yuruarie river	327
Zapang mountains	313
Zaura river	320
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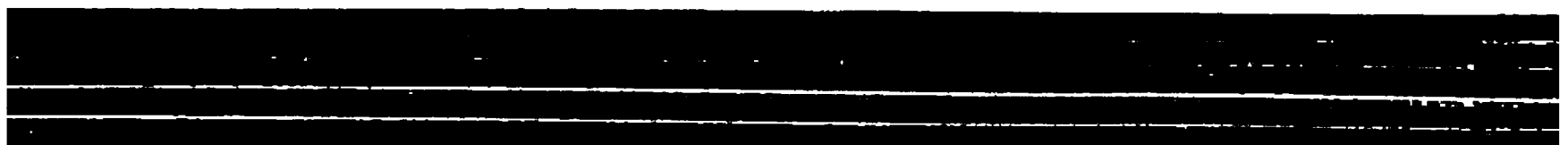
Zuiker creek	292



PARTIAL LIST OF MAPS OF THE ORINOCO-ESSEQUIBO REGION.

By MARCUS BAKER.

INTRODUCTORY NOTE.

The attention of the Commission has been drawn to several hundred maps covering the Orinoco-Essequibo region. In some cases the maps themselves were laid before the Commission, in others the titles only. It has not been practicable to see *every* map to which attention has been drawn, by citing its title, yet *nearly* every such one has been seen and examined. This examination has led to the impression that the list here printed, while far from being exhaustive, is quite full enough to make clear the map history of the boundary question, from the first discovery of America down to Schomburgk's time, about 1840.

It was hoped that a practically exhaustive list with critical notes might be prepared, but time did not suffice for this. Accordingly this list, like the Geographic Notes, was sent to press in the stage in which it happened to be when it became necessary to discontinue "investigation."

The titles here entered are taken in every instance, except a few where the contrary is indicated, from the maps themselves, and consist of literal transcripts, followed by descriptions of size, color, where seen, etc., with brief notes in some cases. The first figures indicating size show the height, the second width. The measurements are usually made from neat line to neat line, but are greater than this when matter is printed *outside* the neat line.

The arrangement is alphabetic by authors, and as the authorship is sometimes obscure, the aim has been to so enter each map as to make it easily findable. Maps, for example, bearing Delisle's name, but more or less amended by other people after his death, yet still bearing his name, are most likely to be sought for under his name and are so catalogued.

Much the most important aid for preparing this list was a collection of maps, illustrating the boundary question, submitted to the Commission by the Republic of Venezuela.

Numerous *lists* or catalogues, both printed and manuscript, were tendered to or otherwise obtained by the Commission. Such lists led the way to the maps themselves, when an examination determined whether they should be included or excluded. Thus this list does not include all the maps examined, but only such as seemed in some way, even remote, to be pertinent.

Examinations, in no case exhaustive but more or less complete, were made of the map collections in the Library of Congress, Geological Survey, and Department of State in Washington; of those in the Lenox Library in New York; in Harvard College in Cambridge, Mass., and in the Public Library and Athenæum in Boston. From Mr. P. Lee Phillips was purchased a manuscript list containing (*a*) titles of maps in the Library of Congress covering the region in question, and (*b*) similar titles of maps not included in that collection. The Lenox Library, so rich in early Americana, furnished a complete manuscript catalogue of those books and maps in its collection, which pertain to the region and which were published between 1500 and 1799. Two manuscript catalogues of books and maps were furnished by the Department of State, while a short but important list was furnished by Mr. Paul Leicester Ford, of Brooklyn, N. Y. Besides these, several persons sent books, maps, or titles to the Commission. Some of these, thus received, were not obtained from other sources.

The abbreviations used are few and readily understood; such as L. C. for Library of Congress, H. C. for Harvard College, L. for Lenox Library, B. Ath. for Boston Athenæum, B. Pub. for Boston Public, G. S. for U. S. Geological Survey, and V. C. for the collection of maps submitted by the Republic of Venezuela.

Aa (Pieter van der). Nouvelle carte | de l' | **Amerique**, | avec tous ses Royaumes, Etats, Iles, Ports, | Bayes et Rivieres, dressée suivant les | plus nouvelles decouvertes par les plus | habiles Géographes, et tout nouvellement | mise en lumiere par | Pierre vander Aa, Marchand | Libraire à **Leide.** [**No Date.**]

Size, 17 x 21¼ inches.
Colored; hand painted boundaries only.
Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 156).

NOTE.—*Guiana is the region between the Amazon and Orinoco. New Andalusia lies on both sides of the lower Orinoco.*

Aa (Pieter van der). **L'Amerique | Meridionale**, | Suivant les | Nouvelles Observations de | Messrs de l'Academie Royale | des Sciences, etc. | Augmentées de Nouveau. | A **Leide**, | Chez Pierre vander **Aa.** Avec privilege. [**?1700.**]

Size, 8¾ x 11¼ inches.
Black; no boundary.
[*In* Hooge (R. de) Les Indes orientales et occidentales, etc., oblong fol. Leide; *no date;* plate f.]
Copy seen, L. C.; also colored copy of same, with ornamental border, in library of U. S. Geol. Survey (in collection labeled *American Maps*, vol. ii, no. 116).

NOTE.—*Perhaps copied from Delisle's map of 1700, no. 36, of accompanying atlas.*

Aa (Pieter van der). 'tLandschap | **Cumana**, | Tussen | Golfo de | Venezuela | en | Rio de Paria | Gelegen. | Cumana, Pays situé entre le Golfe de Venezuela et Rio de Paria, dans l'Amerique Meridionale, dressé sur les Rélations du second Voyage de Ferd. Cortes, et sur plusieurs | autres plus recentes, nouvellement donné au Public par Pierre vander Aa, à **Leide.** Avec Privilege. [**No date.**]

Size, 8¼ x 13¼ inches.
Colored; ornamental border, boundaries not engraved.
Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 85).

NOTE.—*Nova Andalusia is on both banks of the Orinoco.*

Aa (Pieter van der). Het | Goudryk gewest | **Guiana**, | tot de | Drywerfze | Scheepstogten | van den Ridder | **Walter Ralegh** | afgebakend. | Uytgeveerd te **Leyden** door Pieter vander Aa met privilegie. Walter Ralegh. [**No date.**]

Size, 6¼ x 9 inches.
Black; no boundaries.
[*In* Aa (P. van der). De wijd-beroemde voyagien na oost-en west-indiën, etc., in two vols., fol. Leyden, no date (1706?), vol. 1.]

Copies seen, L. C. and Lenox.

Another copy *in* Aa (P. van der) Naaukeurige versameling, etc., 28 vols., 12°, Leyden, **1707**, vol. 21.

Another edition, colored and without date, is in the library of the U. S. G. S. (in a collection labeled *American Maps*, vol. i, no. 21). It has in the margin the words: Gujane, grand Pays de l'Amerique Meridionale, abondant en mines d'or, exactement décrit par Walter Ralegh en trois differens voyages qu'il y a faits, dressé sur ses Mémoires, et | rectifié par des Observations d'autres Voyageurs plus modernes, tout nouvellement rendu public par Pierre vander Aa, à Leide. Avec Privilege.

NOTE.—*Between the Amazon and Orinoco is Guiana; west of the Orinoco is Paria.*

Aa (Pieter van der). Scheepstogt door | **Robert Harcourt** | gedaan na | **Gujana** | Uytgevoerd te Leyden door Pieter vander Aa met privilegie. Robert Harcourt. Pag. 1.

Size, 6¼ x 9 inches.

Black; no boundaries.

[*In* Aa (P. van der) Naaukeurige versameling, etc., 28 vols., 12°, **Leyden, 1707**, vol. 24.]

Copy seen, L.

NOTE.—*Guiana is the region between the Amazon and Orinoco.*

Aa (Pieter van der). Scheepstogt door | **Robert Harcourt** | gedaan na | **Gujana.** | Voyage par Mer de Robert Harcourt dans la Gujane grand Païs de l' Amerique Meridionale, dressé suivant la Description qu'il en a donnée, et rendu plus parfait par de plus nouvelles, à | present publié par Pierre vander Aa, à **Leide**. Avec privilege. [**No date.**]

Size, 8¾ x 11¼ inches.

Colored; ornamental border, hand colored boundary only.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 19).

NOTE.—*Guiana is the region between the Amazon and Orinoco. Nova Andalusia and Paria are west of the Orinoco.*

Aa (Pieter van der). d'Engelze | Volkplanting | in't | Amerikaans | gewest | **Gujana**, | en | Rio de Las | **Amazones**, | Door de scheepstogt | van | **Charles Leig** | Begonnen. Uytgevoerd te **Leyden** door Pieter vander Aa mit Privilegie. Charles Leig. [**No date; 1706?**]

Size, 6¼ x 9 inches.

Black; no boundaries.

[*In* Aa (P. van der) De wijd-beroemde, etc. In two vols. fol. Leyden, no date vol. 1.] Copy seen, L. C.

Another copy in Aa (P. van der) Naaukeurige versameling, etc. 28 vols. 12°, Leyden, **1707**, vol. 22. Copy seen, L.

Another edition, colored and undated, in library of the U. S. G. S. (in collection labeled *American Maps*, vol. i, no. 42.), has in the margin the words: Peuplade des Anglois dans la Gujane et la Païs des Amazones deux vastes Regions de l'Amerique Meridionale, commencée par Charles Leig dans son Voyage par Mer, dressée sur ses | Relations et sur celles des autres Voyageurs plus modernes, à present publiée par Pierre vander Aa, à Leide. Avec Privilege.

NOTE.—*Between the Amazon and Orinoco is Guiana; west of the Orinoco is Nova Andalusia and Paria.*

Aa (Pieter van der). **A. Knivets** | zeldzame **Reystogt** door | de Straat Magellaan | na de | Zuyd Zee | tot aan zyn Vlugt in | Angola agtervolgt | Uytgevoerd te **Leyden** door Pieter vander Aa met Privilegie. Antony Knivet. [**No date.**]

Size, 6 x 9 inches.

Black; no boundaries.

[*In* Aa (P. van der). De wijd-beroemde, etc. In two vols. fol. Leyden, no date (1706?), vol. 1.]

Copy seen, L. C.

NOTE.—*Guiana is the region between the Amazon and Orinoco. Paria is west of the Orinoco.*

Aa (Pieter van der). **Terra firma** | oft | vaste land | van | Darien, Veragua, | Cartagena, en | Nieuw Andalusie, | etc. | Terra-Firma, ou Terre-ferme de Darien, Veragua, Cartagene, Nouvelle Andalousie, etc. sur les Mémoires de Sebast. d'Ocampo ét des autres qui l'ont suivi, de | nouveau mise au jour par Pierre vander Aa, à **Leide**. Avec privilege. [**No date.**]

Size, 8¼ x 13¼ inches.

Colored; boundaries hand painted only.

Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 108).

NOTE.—*Nova Andalusia lies on both sides of the lower Orinoco.*

Abelin (Johann Philipp). **America** | nouiter delineata. |

Size, 14 x 17 inches.

Black; no colors.

[*In* Abelin (J. P.) Newe welt und Americanische historien, etc. Durch Johan Ludwig **Gottfriedt**. (pseud.) fol. **Franckfurt am Meyn 1631**, p. 1.]

Also *in* same; fol. Franckfurt am Mäyn 1655 p. 1.

Copies seen, L. C.

NOTE.—*Engraved boundary shows Guiana as an interior region and Caribana to the eastward.*

Alexander (*capt.* J. E.) A sketch map | of | **British Guiana** | South America, | Compiled from the Surveys & Reports of | **Hancock**, Hillhouse and Dutch & Spanish Authorities, | with the probable boundaries | between the British Columbians, Portuguese, & Dutch. | By | Captn J. E. Alexander H. P. | Published * * * by John Murray, July **1832**. | J. & C. Walker Sculpt.

Size, 4¼ x 8¼ inches.
Black; engraved boundary.
[*In* Royal Geographical Society Journal, 8°., **London**, 1832, vol. 2, p. 65.]
Copies seen, L. C., H. C.

NOTE.—*Shows substantially the Arrowsmith-Schomburgk line, and perhaps is the original of the modern form of it.*

American Atlas. *See* Carey (Henry C.) and Lea (Isaac).

Anderson (C. Wilgress). Map | of a **portion of** the colony of | **British Guiana**, | shewing the Demerara, a portion of the Essequibo, and | the Potaro rivers and surrounding country. | By | C. Wilgress Anderson, F. S. I., F. R. G. S., | Government Surveyor. | **Georgetown**, Demerara, | January, **1896**. | Copied by:— | L. S. Hohenkerk | 5th May, 1896. | Waterlow & sons limited, London Wall, **London**. |

Size, 22¼ x 18 inches.
Colored; no boundaries.
Scale, about 9 miles to 1 inch.
[*In* Perkins (H. J.) Notes on British Guiana and its gold industry, *second edition*, revised and enlarged. 8°, London, (1896).]
Copy seen, J. J. Storrow.

NOTE.—*In part compiled and in part from surveys by the author.*

[**Anonymous.**] Nuova ed esatta | Carta Della | **America** | Ricavata dalle | Mappe, e Carte | piu approvate | Andrea Scacciati scolpi | Giuseppe Pazzi scrisse. |

Size, 14 x 11 inches.
Black; engraved boundary.
[*In* Atlante dell'America, etc. (anon.) fol. **Livorno**, G. T. Masi & Co., **1777**. pl. 1.]
Copy seen, L. C.

NOTE.—*Engraved boundary along mountains midway between the Essequibo and Orinoco.*

[Anonymous.] **America.** | Gio. Mazzajoli Editore | Cesare Poggiali incise | **[No date.]**

Size, 9¾ x 14 inches.
Black; engraved boundary.
Copy seen, V. C. no. 64.
NOTE.—*Essequibo river is the boundary line.*

[Anonymous.] Carta | rappresentante | **L'America** | **Meridionale** |

Size, 6½ x 8½ inches.
Black; no boundaries.
[*In* Atlante dell' America, etc., (anon.) fol. **Livorno**, G. T. Masi & Co., **1777**, no. 34.]
Copy seen, L. C.
NOTE.—*The Essequibo is shown as the Orinoco. Small, poor map.*

[Anonymous.] **British Guiana.** G. Philip & Son, 32 Fleet St. **London.**

Size, 7¾ x 5 inches.
Black; engraved boundaries.
[*In* British Guiana and its Resources, by the author of "Sardinia and its Resources." (anon.) 12°, London, **1895**, front.]
Copy seen, Hon. A. D. White.
NOTE.—*Shows the gold fields, and "modified" Schomburgk line.*

[Anonymous.] **Colombia.** | from | Humboldt | and other | recent authorities. | **London.** Published Jany. 15th, **1823**, by Baldwin Cradock & Jay, Paternoster Row. | Engraved by Neele & Son 352 Strand. | Robt. Mudie, direx^{t}. |

Size, 21½ x 25 inches.
Black; engraved boundaries.
[*In* **Walker** (A.) Colombia, etc. (anon.) 2 vols. 8°, London, 1822, vol. 2, at end.]
Copy seen, L. C.
NOTE.—*Shows a much modified form of the Cruz Cano line.*

[Anonymous.] **Colombia.** | taken from | Humboldt | and various other | recent Authorities. | Gravado por Neele é hijo Strand. | **London**: Published July 29, **1824**, by G. Cowie, & C°. Poultry. | Robt. Mudie direx^{t}. |

Size, 20 x 23½ inches.
Black; engraved boundary.
[*In* Letters written from Colombia, during a journey from Caracas to Bogotá, and thence to Santa Martha, in 1823. (anon.) 12°, London, 1824, front.]
Copy seen, L. C.
NOTE.—*The boundary is a modified form of the Cruz Cano line.*

[**Anonymous.**] **Colombia.** Tomado de Humboldt y de varias otras autoridades recientes. **Londres.** Publicado el 27 de Enero de **1823** por Baldwin, Cradock y Jay, Paternoster Row. **Robt. Mudie direx^{t}.** Gravado por Neele é hijo Strand.

Size, 21½ x 24½ inches.
Black; engraved boundaries.
[*In* Walker (A.) Colombia, etc. (anon.), 8°, London, 1822. p. 1.]
Copy seen, H. C.

[**Anonymous.**] Carte de **la Colombie et des Guyanes, 1835.**

Copy seen, manuscript copy, V. C. no 39.

[**Anonymous.**] **Colombie | et | Guyanne |**

Size, 8 x 10½ inches.
Black; engraved boundary.
[*In* Campagnes et Croisières dans les états de Venézuéla, etc., traduit de l'anglais, 8°. **Paris, 1837,** at end.]
Copy seen, L. C.
NOTE.—*Shows the Cruz Cano line.*

[**Anonymous.**] **Gvaiana** | J. Lux fec. | pag. 1. |

Sixe, 7 x 10 inches.
Black; no boundaries.
[*In* Pertinente beschrijvinge van Guiana, etc. (anon.), sm. 4°, **Amsterdam, 1676.**]
Copy seen, D. C. Gilman.
NOTE.—*Resembles the De Laet and Blaeuw maps.*

[**Anonymous.**] Map of the **Missions | of the | Caroni.** | J. P. **1818.** | Published by John Murrray, Albemarle street, **London,** 1820. | Pl. I, Vol. IX. | J. Basire sc. |

Size, 7½ x 9¼ inches.
Black; no boundaries.
[*In* Quarterly (The) Journal of Science, Literature, and the Arts. 12°, London, 1820, vol. 9, pl. 1, at end.]
Copy seen, H. C.

[**Anonymous.**] An exact map of **North America** from the best authorities. J. Lodge, sculp. [**? London** about **1770.**]

Size, 9½ x 15 inches.
Black; engraved boundary.
Copy seen, Bancroft collection in L.
NOTE.—*The engraved boundary runs nearly south from Barima point and then curves eastward.*

Anonymous.] A | new map | of | **South America,** | from the best | authorities. | Jn°. Lodge sculp. | [**? London** about **1770.**]

Size, 9½ x 13 inches.
Black; engraved boundary.
Copy seen, Bancroft collection in L.
NOTE.—*Shows the D'Anville line.*

Anonymous.] A | map | of | **South America** | from the | latest discoveries. | [**? London, 1780–1800.**]

Size, 8¾ x 11¼ inches.
Black; engraved boundary.
Copy seen, Bancroft collection in L.
NOTE.—*Copied from D'Anville. Looks like Russell's or Reid's map.*

Anonymous.] **La** | **Terra Ferma** | **e la** | **Guiana** | Co' suoi dipartimenti | Delineata | sulle ultime Osservazioni | **Roma** | Presso la Caleografia Camerale. | **1798** | Giov. Mª Cassini Som^co^ Inc.

Black; engraved boundary.
Copy seen, V. C. x, 13.
NOTE.—*Shows the Cruz Cano line.*

Anonymous.] Sketch map | of | **Venezuelan Guayana,** | South America. | Waterlow Bro^s^ & Layton, Birchin Lane, **London.** [**1864?**]

Size, 16¼ x 20½ inches.
Colored; engraved boundaries.
Copy seen, V. C. no. 53.
NOTE.—*Shows the Cruz Cano line.*

Arrowsmith (A.) and **Lewis** (S.) | **South America.** | Hooker sculp^t^. |

Size, 9¾ x 8 inches.
Black; engraved boundary.
[*In* Arrowsmith (A.) and Lewis (S.) A New and Elegant General Atlas, etc., 4°, **Phila., Balto., Washington,** etc., **1804,** pl. 59.]
Copy seen, H. C.
Same map in another edition of same. 4°, Boston, Thomas & Andrews, Oct. 1, 1805, pl. 59.
Copy seen, L. C.
There is another ed. by Morse, 1812.
NOTE.—*Shows the Cruz Cano line.*

Arrowsmith (Aaron). **South America.** Drawn by A. Arrowsmith. Published **1817** by A. Constable & co., **Edinburgh.** Engraved by Sid^{y} Hall.

Size, 8 x 10¼ inches.
Black; no boundaries.
[*In* Arrowsmith (A.) A New General Atlas, etc., 4°, Edinburgh, **1817**, pl. 53.]
Copy seen, H. C.

Note.—*The position of the names would keep the Dutch east of the Essequibo.*

Arrowsmith (Aaron). Outlines | of the | physical and political | divisions of | **South America**: | Delineated by A. Arrowsmith | partly from scarce and | original documents, | published before the year 1806 | but principally from manuscript maps & surveys | made between the years 1771 and 1806, | corrected from accurate | astronomical observations | to 1810. | **London** | Published 4th January **1811** by A. Arrowsmith N°. 10 Soho Square, Hydrographer to H. R. H. the Prince of Wales. | **Additions to 1814.** | Engraved by Edwd. Jones. |

Size, 80 x 95 inches.
Black; painted boundaries.
Copy seen, V. C. no. v.
Note.—*Shows the Cruz Cano line.*

Arrowsmith (Aaron). Outlines | of the | physical and political | divisions of | **South America**: | Delineated by A. Arrowsmith | partly from scarce and | original documents, | published before the year 1806 | but principally from manuscript maps & surveys | made between the years 1771 and 1806, | corrected from accurate | astronomical observations | to 1810. | **London.** Published 4th January **1811** by A. Arrowsmith, N°. 10 Soho Square, Hydrographer to His Majesty. | **Additions to 1814. 1817. 1819.** | Engraved by Edwd. Jones. |

April 2, **1823**, appears to be the date of issue, the index sheet being so dated.
Size, 80 x 95 inches, in six sheets; dissected and folded in 8° case.
Black; painted boundaries.
Copy seen, V. C. no. 6, and L. C.
Note.—*Shows the Cruz Cano line.*

Aaron Arrowsmith was born in 1750 and died in 1823. He was a geographer and head of a well-known family of cartographers. Went to London in 1770, and found employment with John Cary, a map publisher. (Some say with

William Faden.) He carried on the business uninterruptedly till his death in 1823, when his sons Aaron and Samuel continued the business.

John Arrowsmith was born in 1790 and died in 1873. He was a geographer and nephew of the above. Went to London in 1810, and with his cousins, Samuel and Aaron, worked in the firm of his uncle Aaron. After the death of his uncle he set up in the map business for himself, but on the death of his cousin Samuel, became head of the old Arrowsmith house. His first publication was the well known London Atlas of 1834, of which no copy has been found in the United States.

Arrowsmith (John). **Colombia**, dedicated to Colonel Belford Hinton Wilson, | late Aid de Camp to the Liberator, Simon Bolivar. By his Obliged Servant, J. Arrowsmith. **London.** Pub^{d} 15 Feb^{y} **1832**, by J. Arrowsmith, 33 East St Red Lion Square.

Colored; engraved boundaries.

NOTE.—*Not seen. This title is prepared from a tracing of a part of the map described, which tracing has been furnished the Commission by Clements Markham, president of the Royal Geographical Society. It is understood that the map here described was published by John Arrowsmith in 1834 in the first edition of his London Atlas of Universal Geography. It is reproduced as no. 47 of the accompanying atlas.*

Arrowsmith (John). **Colombia,** | dedicated to | Colonel Belford Hinton Wilson, | late Aid de Camp to the Liberator, Simon Bolivar, By his Obliged Servant, | J. Arrowsmith. | **London.** Pub^{d} 15 Feb^{y}., **1842**, by J. Arrowsmith, 10 Soho Square |

Size, 19¼ x 23¼ inches.

Black; engraved boundaries, hand colored.

[*In* Arrowsmith (John). The London Atlas of Universal Geography, etc. fol. London, 1842. pl. 47.]

Copies seen, Department of State and L. C.

NOTE.—*Apparently first published February 15, 1832. Another edition, dated February 15, 1858, in State Department.*

Arrowsmith (John). **South America.** | From | Original Documents, | including | the survey by the officers of | H. M. ships Adventure and Beagle. | Dedicated to | Captain R. Fitz Roy, R. N. | by | John Arrowsmith. | **London.** Published 18th May, **1839**, by John Arrowsmith, 35 Essex S^{t}, Strand. | 46. |

Size, 24¼ x 20¼ inches.

Black; engraved boundaries.

[*In* Fitzroy (*capt.* Robert, *r. n.*) Narrative of the surveying voyages of H. M. ships Adventure and Beagle, in 3 vols. 8°, London, 1839, vol. 1, at end.]

Copy seen, L. C.

Arrowsmith (John). **South America.** | From | Original Documents, | including | the survey by the officers of | H. M. ships Adventure and Beagle. | Dedicated to | Captain R. Fitz Roy, R. N. | by | John Arrowsmith. | **London.** Published 18th May **1842**, by John Arrowsmith, 10 Soho Square. |

Size, 24¼ x 20¼ inches.

Black; engraved boundaries, hand colored.

[*In* Arrowsmith (John). The London Atlas of Universal Geography, etc. fol. London, 1842. pl. 46.]

Copy seen, State Department.

Arrowsmith (John). Outlines | of the | physical and political | divisions of | **South America**: | Delineated by A. Arrowsmith | partly from scarce and | original documents, | Published before the year 1806 | but principally from manuscript maps & surveys | made between the years 1771 and 1806, | corrected from accurate | astronomical observations | to 1810. | **London.** Published 4th January **1840** by J. Arrowsmith N°. 10 Soho Square, Hydrographer to Her Majesty. Engraved by Edwd. Jones.

Size, 80 x 95 inches in six sheets; dissected and folded in 8° case.

Black; hand painted, but not engraved boundaries.

Copy seen, L. C.

NOTE.—*Part of this map reproduced in the accompanying atlas, pl. 48.*

Avity (Pierre d'). Carte de | **l'Ameriqve** | Corrigeé et augmentee dessus | toutes les aultres cy deuant | Faictes L'annee **1640** |

Size, 15 x 19½ inches.

Black; no boundaries.

[*In* Avity (P. d'). Description generale de l'Ameriqve, etc. fol. **Paris 1643**, front.]

Copy seen, L. C.

NOTE.—*Region between Amazon and Orinoco is Guiana. The name Caribana also appears in same region.*

Bache (*capt.* Richard, *u. s. n.*) **Colombia.** | Drawn by J. Finlayson. | Engr. by J. Yeager. |

Size, 9¼ x 11¼ inches.

Black; engraved boundary.

[*In* Bache (*capt.* Richard). Notes on Colombia, etc. (anon.) 12°, **Philadelphia, 1827**, front.]

Copy seen, L. C.

NOTE.—*Shows a generalized form of the Cruz Cano boundary line.*

Bakewell (Thomas). **America** a new and most exact Map laid down according to the observations communicated to the English Royal Society the French Royal | Academy of Sciences and those made by the latest Travellers to this present Year **1740.** Printed & Sold by Tho: Bakewell. Next the Horn Tavern in Fleetstreet [**London**] | in which are explain'd all the Islands &c. belonging to France, Spain, Holland, England, &c.

Size, 19¼ x 23½ inches.
Black; engraved boundaries, hand colored.
Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 106).
NOTE.—*Shows the Sanson line.*

Bell (James). | **Brazil** | **& Paraguay.** | Published by Arch^{d} Fullarton & Co. Glasgow. | Eng^{d} on steel by Gray & Son. |

Size, 9¼ x 8 inches.
Black; engraved boundary.
[*In* Bell (James). A system of geography, etc. 12°, **Glasgow, 1834**, vol. vi., p. 149.]
Copy seen, L. C.
NOTE.—*Shows the Cruz Cano line.*

Bell (James). **Colombia.** | Pub^{d} by Arch^{d} Fullarton & Co Glasgow. | Eng^{d} on steel by Gray & Son. |

Size 8 x 9¼ inches.
Black; engraved boundary.
[*In* Bell (James). A system of geography, etc. 12°, **Glasgow, 1834**, vol. vi, p. 27.]
Copy seen, L. C.
NOTE.—*Shows the Cruz Cano line.*

Bell (James). **South America.** | Published by Arch^{d} Fullarton & Co. Glasgow. | Eng^{d} on steel by Gray & Son. |

Size, 10¼ x 8 inches.
Black; engraved boundaries.
[*In* Bell (James). A system of geography, etc. 12°, **Glasgow, 1834**, vol. vi, p. 1.]
Copy seen, L. C.
NOTE.—*Has an engraved boundary line from Barima point to junction of the Mazaruni and Cuyuni.*

Bellin (Jacques Nicolas). Carte Réduite des | **Costes de la Guyane** | Depuis la Riviere d'Orenoque jusqu'au Cap de Nord | à l'Entrée de la Riviere des Amazones | Dressée au Depost des Cartes et Plans de la Marine | Pour le Service des Vaisseaux du Roy | * * * Par

le S. Bellin Ingenieur de la Marine * * **M. DCC.LX** | Prix. Un Franc et demi. | N°. 83. |

Size, 22½ x 34½ inches.

Black; no boundaries.

[*In* France. Depôt des cartes. Hydrographiques Françoise, etc. Par feu M. Bellin. fol. **Paris** 1737–1772. vol. 2, no. 83.]

Copy seen, V. C., no. 17.

NOTE.—*The names Guyane Espagnole and Guyane Hollandoise indicate a division in the vicinity of the Pomeroon river.*

Bellin (Jacques Nicolas). Carte des | **Entrées** des Rivieres de | **Demerary et d'Essequebe** | Suivant les Plans des Hollandois |

Size, 8¼ x 6½ inches.

Black; no boundaries.

[*In* Bellin (J. N.) Description geographique de la Guiane. 4°, **Paris, 1763**, p. 105.]

Copy seen, L. C.

Bellin (Jacques Nicolas). Carte de | la **Guiane** |

Size, 7½ x 13¼ inches.

Black; engraved boundary.

[*In* Bellin (J. N.) Description geographique de la Guiane. 4°, **Paris, 1763**, p. 1.]

Copy seen, L. C.

NOTE.—*The Pomeroon river and a line running southwesterly from its source are indicated as boundaries. This map is reproduced in the accompaniny atlas, pl. 52.*

Bellin (Jacques Nicolas). Carte d'une **Partie du Cours** | **de l'Orenoque** | Depuis sa principale Embouchure jusqu'a la | Ville de S^t^. Thomas de Guyane. | Suivant les Cartes Angloises et Hollandoises |

Also on the same plate is another map of the same region, entitled:—

Carte du **Bras Principal** | **de la Riviere d'Orenoque** | Depuis la Pointe de Barime a son Embouchure | jusqu'au Fort de S. Thomas | Suivant un Manuscrit François. |

Size, 8½ x 11¼ inches.

Black; no boundaries.

[*In* Bellin (J. N.) Description geographique de la Guiane. 4°, **Paris, 1763**, p. 29.]

Copy seen, L. C.

Bellin (Jacques Nicolas). Carte de l'Entrée de | la **Riviere de Poumaron** | Suivant les Plans des Hollandois |

Size, 8¼ x 6¼ inches.
Black; no boundaries.
[*In* Bellin (J. N.) Description geographique de la Guiane. 4°, **Paris, 1763**, p. 103.]
Copy seen, L. C.

Bercheyck (Laurens Lodewyk van). Caerte van de **rivier Demerary** van ouds Immenary gelegen op Suyd Americaes noordkust op de noorder Breedte van 6 gr: 40 min: **1759.** Aan de Edele Groot Achbaere Heeren, [etc.]; word dese caert van de rivier Demerary met alle Eerbiedigheid opgedragen, door Haar Edele groot Achbaerhedens gehoorsamste en onderdanigste Dienaar Laurens Lodewyk van Bercheyck. Te **Amsterdam** by Hendrik de Leth in de Visser.

Size, 20½ x 40 inches.
Black.
Copies seen, H. C., (marked $\frac{41}{10}$); also in a copy of Covens and Mortier Atlas, B. Ath.

NOTE.—*Contains as an inset, without title, a general map on which are engraved the D'Anville boundaries. Dedicated to the Zeeland Chamber of the Dutch West India Company.*

Bew (J.) *See* The **Political Magazine.**

Bianconi (F.) Carte Commerciale | des | **États-Unis de Venezuela** | par | F. Bianconi | Ingénieur-Geographe | Publiée par Librairie Chaix, 20, rue Bergère, **Paris** | September **1888.** | Imp. Chaix, Paris, 20, Rue Bergère |

Size, 21 x 23¼ inches.
Colored; engraved boundaries.
[*In* **Chaix** (La Librairie). Collection des Études Générales Géographiques. Cartes Commerciales, etc. 6me série, no. 9. États-Unis de Vénézuela par F. Bianconi & E. Broc. 4to, Paris, 1888.]
Copy seen, War Department Library.

NOTE.—*Shows the Essequibo river as the boundary. Also has an inset showing the gold mining district on the Yuruary.*

Blaeuw (William). **Americæ | nova Tabula.** | Auct: Guiljelmo Blaeuw. | Cum privilegio | decem annorum. |

Size, 16 x 21½ inches.
Black; engraved boundaries, hand colored.

[*In* Blaeuw (W. J.) and Bleauw (Jan). Le grand atlas. fol. **Amsterdam, 1667**, vol. 12, pp. i–ii.]

Copy seen, L. C.

NOTE.—*Guiana, an interior region reaching to the Amazon and nearly to the Orinoco, is enclosed by an engraved boundary line.*

Blaeuw (William). **Gviana | siue ·| Amazonvm | regio | Amstelodami** | Guiljelmus Blaeuw excudit. | [**No date.**]

Size, 14⅝ x 16¼ inches.

Colored; no engraved boundaries, hand colored only.

Copy seen, G. S. (in collection marked *American Maps*, vol. 1, no. 73).

The Lenox Library has an uncolored copy of this; also another copy, uncolored, in which Blaeuw's name is replaced by H. Hondius.

NOTE.—*Shows the Sanson line. This map is reproduced in the accompanying atlas, plate 28.*

Blaeuw (William). **Gviana | siue | Amazonvm | regio | Amstelodami** | Guiljelmus Blaeuw excudit. | [**No date.**]

Size, 14½ x 19 inches.

Hand colored; no engraved boundaries.

[*In* Blaeuw (W. J.) and Blaeuw (Jan). Le Grand atlas, ov cosmographie Blaviane. fol. **Amsterdam. J. Blaeuw, 1667**, vol. 12, pp. 277–278.]

Copy seen, L. C. Another copy in H. C. (marked $\frac{1680}{3}$) is hand colored and shows the Sanson line. According to the B. M. catalogue a copy of this map was engraved at Franckfort in 1669, by I. P. Thelott.

NOTE.—*This map is reproduced in the accompanying atlas, pl. 26.*

Blaeuw (William). **Gviana | siue | Amazonvm | regio | Amstelodami** | Guiljelmus Blaeuw excudit. | Reproduced by photo-lithography from the original, | British Museum, | 4 table 9, | plate 120. | The yellow colour is understood to indicate the Dutch boundary. | The book containing this map | was published in A. D. **1640**. | I. D., W. O., No. 1142b. | Walker & Boutall. |

Size, 15⅜ x 19¼ inches.

Black; colored boundaries only.

[*In* Great Britain. Parliament. Venezuela. No. 1 (1896). Maps to accompany documents and correspondence relating to the question of boundary between British Guiana and Venezuela. Presented to both Houses of Parliament by command of Her Majesty. March 1896. fol. London, 1896. Appendix III, map 2.]

NOTE.—*This map is reproduced in the accompanying atlas, plate 27.*

Blaeuw (William). **Venezvela,** | cum parte Australi | Novæ Andalvsiæ. | **Amstelodami,** | Guiljelmus Blaeuw excudit. | [**No date.**]

Size, 15 x 19 inches.

Hand colored; no engraved boundaries.

[*In* Blaeuw (W. J.) and Blaeuw (Jan). Le grand atlas ov cosmographie Blaviane. fol. **Amsterdam, 1667**, vol. 12, pp. 299–300.]

Copies seen, L. C.; also G. S. (in collection labeled *American Maps*, vol i, no. 77); also in H. C. in the edition of **1635**, vol. xi, p. 277, without color or boundaries.

See also **Ottens** (R. and J.) and **Valk** (G.) and **Schenk** (P.)

Blanco (*general* Guzman). See **Venezuela** (Republic of).

Blome (Richard). A | New Map of | **America** | **Meridionale** | Designed by Monsiuer | Sanson Geographer to the | French King, and Rendred | Into English, and Illustrated by | Richard Blome, by his Maiestie | Especiall Command. | **London** | Printed for Ric: | Blome Anno | **1669** |

Size, 15¼ x 20¾ inches.

Black; engraved boundaries, hand colored.

[*In* Blome (Richard). Geographical description of the four parts of the world, etc. fol. London, **1670.** Part 4, p. 40.]

Copy seen, L. C.

Another copy, without date, in Bancroft collection in L.

NOTE.—*Shows the Sanson line.*

Blome (Richard). A | New Mapp of | **America** | **Meridionale** | Designed by Monsieur | Sanson Geographer to the | French King, and Rendred | Into English, and Illustrated by | Richard Blome, by his Maiestie | Especiall Command. | **London** | Printed for Ric: Blome **[1680.]**

Size, 15¼ x 20¾ inches.

Black; engraved boundaries.

[*In* Varenius (——). Cosmography and geography, in two parts: The first * * from Varenius; the second * * from the notes and works of the famous Monsieur Sanson. 3d ed. fol. **London**, 1693. The second part bound with the above is entitled A geographical description of the world, taken from the works of the famous Monsieur Sanson, late geographer to the present French king, etc. Illustrated with maps. The second part. By Richard Blome. Printed in the year **1680.** p. 462.]

Copy seen, L. C.

NOTE.—*This map is printed from the same plate as Blome's map of South America of 1669, the date being erased, and a new dedication to John Jeffreys being substituted for the former one to George, Duke of Albemarle. Shows the Sanson line.*

Blomfield (*rev.* Ezekiel). **South** | **America,** | from the best | Authorities. | Barlow sculp. |

Size, 7¼ x 8¼ inches.

Black; engraved boundary.

[*In* Blomfield (E.) A general view of the world; 2 vols. 4°. **Bungay. 1807.** vol. 2, p. 600.]

Copy seen, L. C.

NOTE.—*The boundary is a crude copy of D'Anville.*

Bolingbroke (Henry). Map | of the Rivers | **Essequebo, Demerary,** | **Berbice,** | &c. &c. | Neele sculp. Strand. | **London** Published, May 16, **1807**, by R. Phillips, New Bridge Street. |

Size, 9¾ x 16 inches.

Black; no western boundary.

[*In* Bolingbroke (H.) A voyage to the Demerary, etc. 4°, London, 1807, p. 1; also *in* Phillips (Richard). A collection of modern and contemporary voyages and travels, etc. 8°, London, 1809, vol. 10, front.]

Copies seen, L. C.

NOTE.—*Morocco river is the western limit of the map.*

Bolton (—). **South** | **America.** Performed under the Patronage of | Louis Duke of Orleans | First Prince of the Blood, | By the Sieur **d'Anville** | Improved by Mr Bolton for | Mr **Postlethwayt's** Dictionary of | Commerce. | To His Grace the | Duke of Rutland. This Map of | South America | is most humbly Inscribed. | Tho: Kitchin Sculp^t^ **1755.** |

Size, 29¼ x 48 inches, in three sheets.

Black; engraved boundary lines.

[*In* **Postlethwayt** (Malachy). The universal dictionary of trade and commerce, translated from the French of * * * M. Savary, etc. fol. **London,** for J. & P. Knapton, **1755,** vol. 2 at end.]

Copies seen, L. C. and H. C. (marked $\frac{15}{5}^{90}$).

NOTE.—*From D'Anville's map of 1748, as the title indicates. The boundary has been carred to the westward and the rivers Cuyuni and Mazaruni much shortened.*

Bonne (Rigobert). **Amérique** | **Méridionale.** | Par Mr Bonne, Ingénieur-Hydrographe | de la Marine. | Liv. VII et X. | No 29 (1780).

Size, 12¾ x 8¼ inches.

Black; engraved boundaries, some of them hand colored.

[*In* Raynal (l'Abbé Guillaume Thomas). Atlas de toutes les parties connues du globe terrestre, dressé pour l'histoire philosophique et politique des établissemens et du commerce des Européens dans les deux Indes. (anon.) 4°; no place or date; perhaps **Genève, 1780**)].

Copies seen, State Department and V. C. no. 18.

NOTE.—*Shows the Cruz Cano line.*

›nne (Rigobert). Carte Générale | de **l'Amérique** | **Méridionale.** | Par M. Bonne, Ingén[r] Hydrographe | de la **Marine,** | Fev. **1781.** | Avec Privilege du Roi. | Perrier Sculp. | André Scrip. |

Size 12¾ x 8½ inches.

Black; painted boundaries.

[*In* Grenet (L'Abbé ———). Atlas Portatif a l'usage des Colleges, etc., 4° (**Paris?**, no date); at end.]

Copy seen, Henry C. McCook.

NOTE.—*The Essequibo river is shown as the boundary line. This map is reproduced in the accompanying atlas, pl. 51.*

›nne (Rigobert). Carte du **nouv. R[me] de Grenade,** de la **nou[le]. Andalousie,** | **et de la Guyane,** | avec les Pays Limitrophes qui en ›ont au Sud. | Par M. Bonne, Ingénieur-Hydrographe de la Marine. | Liv. VII, X et XII. N° 31.

Size, 8¼ x 12¼ inches.

Black; engraved boundaries.

[*In* Raynal (L'Abbé Guillaume Thomas). Histoire philosophique et politique, etc. Atlas, 4° (**Genève, 1780?**) pl. 31.]

Copies seen, State Department; V. C. no. 18, and MS. tracing in V. C. no. 41.

NOTE.—*Shows the Cruz Cano line.*

›nne (Rigobert). **Nouveau Royaume** | **de Grenade,** | **Nouvelle Andalousie,** | **et Guyane.** | Par M. Bonne, Ingen[r].-Hydrographe | le la Marine. | André sculp. |

Size, 9½ x 13¼ inches.

Black; engraved boundaries.

[*In* Atlas encyclopédique, etc. 4°, **Paris,** Hôtel de Thou, **1788.** Géographie ancienne et moderne. Atlas, second part, pl. 108.]

Copies seen, L. C. and B. Ath.

NOTE.—*Shows the Cruz Cano line.*

›nne (Rigobert). Carte du **nouv. R[me] de Grenade, de la nou[le] Andalousie,** | et de **la Guyane,** | avec les Pays Limitrophes qui en sont ›u Sud. | Par M. Bonne, Ingénieur-Hydropraphe de la Marine. | Liv. VII, X, et XII. | N°. 31. |

Size, 8¼ x 12¼ inches.

Black; engraved boundary.

[*In* Raynal (l'abbé G. T.), Histoire philosophique. Atlas, 4° pl. 31. **No date. (Paris?)**]

Copy seen, State Department.

NOTE.—*Shows the Cruz Cano line.*

Bouchenroeder (Friedrich von). Carte | Génerale & Particuliere | de la Colonie | **d'Essequebe & Demerarie** | Située | dans la Guiane en Amerique | redigée & dediée | au Comité des Colonies & | Possession de la Republique | Batave en Amerique & a la | cote de Guinée | par le Major F. von Bouchenroeder | **1798.** |

Gravé par J. Turpin à la Haye, à **Amsterdam** chez Wouter Brave.

Size, 25½ x 38½ inches.

Hand colored.

Copies seen, H. C. (marked $^{1}\frac{2}{3}^{0}$). Rev. J. H. W. Stuckenberg, 17 Arlington street, Cambridge, Mass., and J. J. Storrow, Boston, Mass.

NOTE.—*This chart contains an inset, 7¼ x 10¼ inches, and entitled, "Carte generale;" it is hand colored and is the original of map No. 7, in British Blue Book, Venezuela. No. 1 (1896), Appendix No. III. The Storrow and Stuckenberg copies are marked "Premiere epreuve."*

Bowen (Emanuel.) A | New and Accurate **Chart** | **of the West Indies**, with the adjacent Coasts of North | and South America. | Drawn from the best Authorities, assisted | by the most approved modern Maps & Charts, and Regulated by astronom[l]. Observations. By Eman. Bowen Geographer to His Majesty. Vol. II. Page 39. [**London, no date.**]

Size, 14½ x 17¾ inches.

Black; engraved boundaries.

Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, No. 117).

NOTE.—*Shows the Popple line from Casipa lake southwards, but no line north of it.*

Bowen (Emanuel). An Accurate **Map of the | West Indies.** | Drawn from the best Authorities, | assisted by the most approved | modern Maps and Charts, and | Regulated by Astronomical | Observations. By | Eman: Bowen. | No. 68. |

Size, 13¾ x 16½ inches.

Black; engraved boundary.

[*In* Complete (A) system of geography . . fol. **London, 1747**, vol. ii, p. 710. Another copy marked "No. 57" *in* Bowen (E.). A complete atlas, etc., fol. **London, 1752.**]

Copies seen, three, all in L. C.

NOTE.—*Shows the Popple line.*

Bowen (Thomas). An accurate Map of | **South America**, | from the best Modern | Maps and Charts. | By Tho[s] Bowen, | Geog[r]. |

Size, 12¾ x 18 inches.

Black; engraved boundaries.

[*In* Bankes (T.), Blake (E. W.), and Cook (A.) New system of Universal Geography, etc., fol. **London**, (**1788**), vol. ii, p. 540.]

Copy seen, L. C.

NOTE.—*The boundary closely resembles Bolton's modification of D'Anville.*

Brion de la Tour (Louis). **L'Amérique Méridionale**, par M. Brion de la Tour, Ingénieur géographe du Roi. A **Paris** chés Esnauts et Rapilly, rue St. Jacques à la ville de Coutances. A. P. D. R. **1780.** Gravé par Beauble.

Size, 21 x 30 inches.

Black; engraved boundaries, hand colored.

Copy seen, H. C. (marked $\frac{4576}{19}$).

NOTE.—*Shows the D'Anville line. Said to be another edition of this map dated 1783.*

Brown (Charles Barrington). Map | of | **British Guiana.** | Stanford's Geog^{l}. Estab^{t}. **London.**

Size, 14 x 10 inches.

Black; engraved boundaries.

[*In* Brown (C. B.) Canoe and camp life in British Guiana, 2d ed., 12°, London **1877**, at end.)

Copy seen, State Department.

NOTE.—*Same map* "Reproduced by the Heliotype Printing Co., Boston, from the original in Canoe and Camp Life in British Guiana, London, 1876, but enlarged 2 to 3." *The boundary is that shown on the first edition of the great map of the colony.*

Brown (Charles Barrington). **Geological Map of | British Guiana,** | by C. B. Brown, | **1873.** | Dangerfield, Lith. 22, Bedford St. Covent Garden. | [**London.**]

Size, 39 x 25 inches.

Colored; engraved boundary.

Scale, 13.6 geographic miles to *one* inch. [The bar scale is erroneously numbered.]

[*In* Brown (C. B.) and Sawkins (J. G.) Reports on the physical, descriptive, and economic geology of British Guiana. Published by order of the Lords Commissioners of Her Majesty's Treasury. 8° London, 1875, at end.]

NOTE.—*As to this map Brown says in his preface, p. 4:* The attached map, containing the geological work of the survey, is from tracings of Sir R. Schomburgh's large map (reduced one half), furnished by the Colonial Office. *The boundary is that shown on the first edition of the great map of the colony. See accompanying atlas, map 1. Also see Perkins (H. J.)*

Bruë (A. H.) [No title.]

Copy seen, manuscript in V. C. no. 44, which was copied from map no. 32 in Bruë (A. H.) Grand Atlas Universel ou Collection de Cartes Encyprotypes, etc, **Paris, 1815.**

NOTE.—*Shows the Cruz Cano line.*

Bruë (A. H.) Carte, encyprotype | de | **l'Amérique | Méridionale,** | Réduite de la Carte sur 4 feuilles du même Auteur, | Dédiée & Présentée | à Monsieur | Par H. Bruë, Ingénieur-Geographe de S. A. Royale. | A **Paris.** |

Chez { Desray, Libraire-Editeur, Rue Haute-feuille, N° 4, près celle St. André des Arcs. / Goujon, Marchand de Cartes Géographiques, Rue du Bac, N° 6. (**1816**). H. Bruë direx.

Size, 22 x 26¼ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 1.

NOTE.—*Shows the Cruz Cano line.*

Bruë (A. H.) Carte | physique et politique | de | **l'Amérique | Méridionale.** | Par | A. H. Bruë, Géographe, de S. A. R. Monsieur. | a **Paris.** | Chez Goujon, Editeur-Propriétaire, Rue du Bac, N°. 6, près le Pont Royal. | **1821.** |

Size, 34⅜ x 22½ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 2.

NOTE.—*Shows the Cruz Cano line.*

Bruë (A. H.) Carte | physique et politique | de | **l'Amérique | Méridionale,** Par | A. H. Bruë, Géographe du Roi., | Publiée pour la première fois en 1821, par J. **Goujon,** | Revue et augmentée par l'Editeur d'après le nouvel Atlas Américain. | à **Paris.** | Chez J. Goujon et J. Andriveau, Géographes-Editeurs, | Rue du Bac, N°. 6, près le Pont Royal. | **1827.** |

Size, 34⅜ x 22¼ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 3. Said to be another edition of 1832; *not seen.*

NOTE.—*Shows the Cruz Cano line.*

Bruë (A. H.) Nouvelle Carte | de | **l'Amérique** | **Méridionale** | et des | îles qui en dépendent, | Dédiée | à l'Académie Royale des Sciences de l'Institut de France; | Par A. H. Bruë, Géographe du Roi. | Revue, corrigée et augmentée par Ch. Picquet, Geog^phe du Roi et du Duc d'Orléans. | **Paris, 1839.** | chez Ch. Picquet, propriétaire des Cartes et Atlas de Bruë, | Quai Conti N° 17, près du Pont des Arts.

Size, 36 x 24¾ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 5. The British Museum map catalogue indicates other editions as follows: 1834, 1863, 1864, 1869, 1877.

NOTE.—*Shows a combination of the Cruz Cano and Arrowsmeth-Schomburgk lines.*

Bruë (A. H.) Carte générale | de | **Colombia** | dressée | par A. H. Bruë, | d'après l'ensemble des observations astrono | miques et des renseignemens topographiques | de | Mr A^dre de Humboldt. | [**Paris,** no date (**?1825**)].

Size, 13½ x 19¼ inches.

Black; engraved boundary.

Copy seen, V. C., viii, 6.

NOTE.—*This undated map is presumably the one of which Humboldt says:* La carte de la Colombia qui j'ai publiée en 1825, et qui a été rédigée par M. Bruë, d'après l'ensemble de mes dessins et des matériaux que j'ai fournis à cet habile géographe, offre les fruits de mes recherches. (*See* Nouv. Ann. des voyages. 8°, Paris, 1837, vol. 74, [vol. 14, series 3], p. 148.)

Bruë (A. H.) Carte générale | de **Colombie,** | de la **Guyane** | **Française, Hollandaise** | **et Anglaise.** | Rédigée par A. Bruë, Géographe du Roi. | d'Après les Observations Astronomiques de M. Alex. de Humboldt celles des navigateurs Espagnols | Anglais et Français et un grand nombre de Cartes gravées ou inédites. | **Paris, 1826.** | Chez l'Auteur, Rue de Maçons-Sorbonne, N° 9 | et chez les principeaux M^ds de Cartes Géographiques. | Atlas Universel. |

Size, 14¼ x 20¼ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., x, 17.

NOTE.—*Shows the Cruz Cano line.*

Bry (Theodore de). **Americæ pars magis cognita.** | Chorographia nobilis & opu | lentæ Peruanæ provinciæ, | atque Brasiliæ, quas ã decimo | ad quintum & quinquagesi- | mum ferè gradum ultra æ- | qua-

torem in longitudinem | patere, diligenti observatione | deprehensum est: ex aucto | rum, qui eas provincias per | lustrarunt, scriptis recens à | Theodoro de Bry conciñata. | Cæsareæ Ma^{tis} privilegio | ad quadriennium | **MDXCII.** |

Size, 14¼ x 17¼ inches.
Black; no boundaries.
[*In* Bry (T. de) Americæ tertia pars. etc. fol. **Frankfort, 1592**, p. 1.]
Copy seen, L. C. and L.
NOTE.—*Map of all South America and southern part of North America. The whole Guiana region is called Caribana.*

Bry (Theodore de). Tabula Geographica nova Omnium ocu | lis exibens et proponens Venssimam | descriptionem potentissimi et aurifen | Regni **Guiana** Sub linea æquinoctiali inter | Brasiliam et peru siti per nautam aliquem | qui **Gualthero Ralegh** navigatione | semper adfuit delineata. |

Neuwe landtaffel, in welcher eigentlich, und | warhafftiglich furgestelt wirdt, das gewaltige, | und Goldtreiche Kunigreich Guiana, so da | ligt under der æquinoctial Linien, zwisch | en Brasilien und Peru, Observiert und | abgerisen von einem schiffman so selbst | mit her Ralegh der fahrt gewesen.

Size, 13½ x 18 inches.
Black; no boundaries.
[*In* Bry (T. de) Americae pars. viii. fol. **Francofvrti ad Moenvm 1599**, front.]
Copies seen, H. C. and L. C.
NOTE.—*This map is reproduced in the accompanying atlas, pl. 23.*

Bry (Theodore de). Small map of the **world** in hemispheres, eastern and western; no title.

Size, 4½ x 9 inches.
Black; no boundaries.
[*In* Bry (T. de) Americae pars viii. fol. **1599**. title page.]
Copies seen, L. C. and H. C.

Buache (Philippe). Carte d'une **partie de l'Amérique** pour la Navigation des Isles et du Golfe du Mexique avec l'interieur des Terres depuis la Bermude jusqu'a Cayenne. Partie Meridionale. Réduite

de la Carte Angloise en 20 feuilles par Mr **Popple** avec quelques Corrections et Augmentations par Phil. **Buache** en **1740.** | N° 5. | A Paris sur le Quay de la Megisserie prés le Pont Neuf avec Privilege du Roy. |

Size, 19¼ x 26 inches.

Black; engraved boundary.

[*In* Delisle (Wm.) Mappemondé, etc., 1720. Augmentée, **1755**, par P. Buache. fol. **Paris**, no. 79 (title page missing).]

Copy seen, L. C.

NOTE.—*Shows the Popple line.*

Buache (Philippe). Carte | de la **Terre Ferme** | **du Perou, du Bresil** | **et du Pays des Amazones** | Dressée sur les Descriptions de Herrera | de Laet, et des PP. d'Acuña, et M. Rodriguéz | et sur plusieurs Relations et | Observations posterieures | Par Guillaume **Del'Isle** Premier Geogra. | du Roy de l'Academie Royale des Sciences | A Paris Chéz l'Auteur sur le Quai de l'Horloge | a l'Aigle d'Or avec Privilege du Roy | pour 20 ans **1703.** |

Ph. Buache P. G. d. R. d. l'A. R. d. S. Gendre de l'Auteur. Avec Privilege du 30 Av. **1745.**

Size, 19¼ x 26 inches.

Black; engraved boundaries, some of them colored.

[*In* Delisle (Wm.) Mappemonde, etc., 1720, Augmentée, **1755**, par P. Buache, fol. (**Paris**). no. 84 (title page missing).]

Copy seen, L. C.

NOTE.—*To this atlas made by Delisle in 1720 (see Memoirs of the Academy, 1720) Buache added new discoveries made between 1720 and 1750.*

Buache (P.) *See* Delisle (Wm.)

Buchon (J. A.) Carte | de **l'Amérique** | **Méridionale.** | Gravé par B. de Beaupré, Grav^r au Dep^t Gal de la Guerre, Rue de Vaugirard, No. 81. |

Size, 16¼ x 11¼ inches.

Colored; engraved boundaries.

[*In* Buchon (J. A.) Atlas géographique, statistique, etc. fol. **Paris, 1825.** pl. 53.]

Copy seen, V. C. No. 25.

NOTE.—*Shows the Cruz Cano line.*

Buchon (J. A.) **Colombie** | Gravé par Beaupré, Rue de Vaugirard, No. 81; à Paris.

Size, 9¼ x 10¾ inches.

Colored; engraved boundaries.

[*In* Buchon (J. A.) Atlas géographique, statistique, etc. fol. **Paris, 1825.** pl. 56.]

Copy seen, V. C. No. 25.

NOTE.—*Shows a modified form of the Cruz Cano line; the engraved boundary and the colored area disagree.*

Buchon (J. A.) **Guyanes.** | H. Mordelet scrip^{t} | Gravé par F. Machuel, rue de (illegible).

Printed on the border of the map are these words:

Carte géographique, statistique et historique de la Guyane.

Size, 13¾ x 15½ inches.

Colored; engraved boundary; hand colored.

[*In* Buchon (J. A.). Atlas géographique, statistique, historique et chronologique des deux Amériques, etc. fol. **Paris, 1825.** pl. 59.]

Copy seen, V. C. No. 25.

NOTE.—*Shows the Cruz Cano line.*

Campens (—). Landkarte von **Süd-America** zu Campens entdekkung von America. Thl. III. F. A. Pingeling sculpsit, **Hamburg, [1780?].**

Size, 12½ x 9 inches.

Black; engraved boundary.

Copy seen, H. C. (marked $\frac{4}{13}^{9}$).

NOTE.—*Shows the D'Anville boundary line.*

Carey (Henry Charles) **and Lea** (Isaac). **Colombia** | Drawn by J. Finlayson. | Engr. by J. Yeager. |

Size 9¼ x 11¼ inches.

Colored; engraved boundary.

[*In* Carey (H. C.) and Lea (I.) A complete historical, chronological, and geographical American Atlas, etc., according to the plan of Le Sage's Atlas, and intended as a companion to Lavoisne's improvement of that celebrated work. fol. **Philadelphia,** H. C. Carey and I. Lea, **1823,** pl. 47.]

Copies seen, Fred. G. McKean, U. S. N., Washington, D. C.; also 3d edition of same **1827,** in V. C. no. 26, and L. C.

NOTE.—*In the text accompanying this map are these words: "The Caribs occupy the coast of Spanish Guiana between the mouths of the Essequebo and the Orinoco." Shows a boundary line from the Pomeroon estuary nearly due south to the Essequibo.*

Carey (Henry Charles) and **Lea** (Isaac). **S. America.** | Drawn by J. Finlayson. | Engrav'd by Young & Delleker. |

Size, 8½ x 15¼ inches.

Colored; engraved boundaries.

[*In* Carey (H. C.) and Lea (I.). A complete historical, chronological, and geographical American Atlas, etc., according to the plan of Le Sage's Atlas, and intended as a companion to Lavoisne's improvement of that celebrated work. fol. **Philadelphia.** H. C. Carey and I. Lea. **1823.** pl. 1.]

Copy seen, Fred. G. McKean, U. S. N., Washington, D. C.

Also, 3d edition of same, corrected and improved, **1827**, pl. 1, in V. C. No, 26, and L. C.

The L. C. copy is the 3d edition, corrected and improved. Drawn by E. Paguenaud; Young and Delleker sc.

NOTE.—*Shows the Essequibo boundary line.*

Carey (Henry Charles) **and Lea** (Isaac). **South America.** | Drawn by E. Paguenaud. | Young & Delleker Sc. |

Size, 16½ x 12¼ inches.

Colored; engraved boundaries.

[*In* Carey (H. C.) and Lea (I.) A complete historical, chronological, and geographical American Atlas, etc., according to the plan of Le Sage's Atlas, and intended as a companion to Lavoisne's improvement of that celebrated work. fol. **Philadelphia,** H. C. Carey and I. Lea, **1823,** pl. 46.]

Copy seen, Fred. G. McKean, U. S. N., Washington, D. C.

Also 3d edition of same, **1827**, pl. 46, V. C. No. 26.

NOTE.—*Shows a compromise between the Cruz Cano and Essequibo lines.*

Carey (Mathew). A | map | of the | **Caracas.** | Warnicke sc. |

Size, 12¾ x 20¾ inches.

Black; engraved boundaries, hand colored.

[*In* Carey (M.) Carey's general atlas, improved and enlarged, etc. fol. **Philadelphia, 1814,** pl. 33.]

Copy seen, F. G. McKean, U. S. N., 1323 Eleventh street, Washington, D. C.

NOTE.—*Shows the Essequibo boundary line.*

Carey (Mathew). A | map | of | **South America** | According to the best | authorities. | Engraved for Carey's American Edition of Guthrie's Geography improved. |

Size, 13¼ x 13¾ inches.

Black; engraved boundary.

[*In* Carey (M.) Carey's American atlas. fol. Philadelphia, 1795, pl. 19; also *in* Carey's general atlas. fol. **Philadelphia,** May 1, **1796,** pl. 42.]

Copies seen, L. C.

Dr. Watson F. Quimby, of Wilmington, Del., writes that he has an atlas published by Mathew Carey at Philadelphia in 1794.

NOTE.—*Shows boundary resembling D'Anville's line of 1748, but curving to westward like the Delisle line of 1722.*

Carey (Mathew). A New Map of **South America** from the Latest Authorities.

Size, 16 x 20¼ inches.

Black; engraved boundary.

[*In* Carey (M.). Carey's general atlas, improved and enlarged, etc. fol. **Philadelphia, 1814**, plate 32.]

Copy seen, F. G. McKean, U. S. N., 1323 Eleventh street, Washington, D. C.

NOTE.—*Boundary follows the Barima, then crosses the Cuyuni, etc.*

Carey (Mathew). A | Map of the | **World** | from the best | Authorities. | Thackara & Valance sc. | Engrav'd for Carey's Edition of Guthrie's new System of Geography. |

Size, 11¼ x 20¼ inches.

Black; engraved boundary.

[*In* Carey (M.) Carey's general atlas. fol. **Philadelphia, May 1, 1796**, pl. 1.]

Copy seen, L. C.

NOTE.—*Shows the D'Anville boundary line of 1748.*

Carey (Mathew). A | map of the | **world** | from the best | authorities. | Thackara & Valance sc. |

Size, 11¼ x 20¼ inches.

Black; engraved boundary.

[*In* Carey (M.) Carey's general atlas, improved and enlarged, etc. fol. **Philadelphia, 1814**, pl. 1.]

Copy seen, Fred G. McKean, U. S. N., 1323 Eleventh street, Washington, D. C.

NOTE.—*Shows the D'Anville boundary line of 1748.*

Caroni (Missions of). *See* **Anonymous.**

Cary (John). A | new map | of | **America,** | exhibiting its | Natural and Political Divisions | Delineated | from the most recent authorities | **London**: Printed for John Cary, N° 181 Strand, Jany. 1, **1821.** |

Size, 51½ x 59½ inches, in four sheets.

Black; engraved boundary; hand colored.

Copy seen, V. C., no number.

NOTE.—*Shows the Cruz Cano boundary line.*

Cary (John). **Brazil.** | By John Cary. | **London**: Publish'd by J. Cary, Engraver & Mapseller, No. 181 Strand. |

Size, 11¼ x 9 inches.

Colored; engraved boundaries; hand colored.

[*In* Cary (John). Cary's New Universal Atlas, etc. Arranged according to the congress of Vienna and the treaties of Paris in 1814–15. 4°, London, **1819**, pl. 72.]

Copy seen, V. C., no. 22.

NOTE.—*Shows the Cruz Cano boundary line.*

Cary (John). Viceroyalty of | **New Granada,** | **and** Government of | **Caracas.** | By John Cary | **London**: Published by J. Cary, Engraver & Mapseller, No. 181 Strand. |

Size, 9¼ x 11¼ inches.

Colored; engraved boundaries, hand colored.

[*In* Cary (John). Cary's New Universal Atlas, etc. Arranged according to the congress of Vienna and the treaties of Paris in 1814–15. 4°, London, **1819**, pl. 69.]

Copy seen, V. C., no. 22.

NOTE.—*Shows the Cruz Cano boundary line.*

Cary (John). A | new map | of | **South America,** | from the latest authorities. | By John Cary, Engraver. | **1807.** | **London**: Published by J. Cary, Engraver & Mapseller, N° 181 Strand, July 1st, 1807. |

Size, 36 x 20¼ inches, in two sheets.

Colored; engraved boundaries.

[*In* Cary (John). Cary's New Universal Atlas, etc. fol. London, 1808, pls. 59 and 60.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano boundary line.*

Cary (John). **South America.** | By John Cary. | **London**: Published by J. Cary, Engraver & Mapseller, N° 181 Strand.

Size, 11¼ x 9¼ inches.

Colored; engraved boundaries, some of them hand colored.

[*In* Cary (John). Cary's New Universal Atlas, etc, Arranged according to the congress of Vienna and the treaties of Paris in 1814–15. 4°, London, **1819**, pl. 68.]

Copy seen, V. C., no. 22.

NOTE.—*Shows the Cruz Cano boundary line.*

Cary (John). A | new map | of the | **West India** isles, | from the latest authorities. | By John Cary, Engraver, | **1803.** | **London** Published by J. Cary Engraver & Mapseller N° 181 Strand, Augst 1, 1803. |

Size, 18 x 20¼ inches.
Colored; no boundary.
[*In* Cary (John). Cary's new universal atlas. fol. **London**, 1808, pl. 58.]
Copy seen, L. C.

Cassani (*rer.* Joseph). *See* **Gumilla** (*rer.* Joseph).

Caulin (*friar* Antonio). *See* **Surville** (Luis de).

Chatelain (Henri Abraham). Carte de la **Terre Ferme, du Perou, du Bresil, et du Pays des Amazones,** | Dressée sur les Mémoires les plus Nouveaux & les observations les plus exactes. | Tom. vi, no. 31, pag. 122. |

Size, 15¾ x 20¼ inches.
Black; engraved boundary.
[*In* Chatelain (H. A.) Atlas historique, etc. fol. **Amsterdam, 1719**, vol. 6, p. 122.]
Copy seen, L. C.

NOTE.—*Guiane or Goyane extends from the diride north of the Amazon to the Orinoco delta and across the upper Orinoco. This map appears to be a copy of Delisle, 1703.*

Clouet (*L'Abbe* —). **Carte d'Amérique,** divisée en ses principaux pays. Dressee sur les Mémoires les plus récents, et sur différents voyages et assujettie aux observations astronomiques de Mrs. de l'Académie Royale des Sciences. Par Mr. l'Abbe Clouet, * * * **1782.**

This map has 20 large pictures along its borders and also the following title in Spanish:

La America dividida segun lo dilatado de sus principales partes cuyos puntos principales estan delineados sobre las ultimas observationes. Por el Sr. Abad Clouet del Academia Real de las Sciencias. En **Paris** casa de L. Mondhare calle de S. Yago y en Cadiz casa de Mondhare. 1782.

Size, 38 x 49¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C.

Cochrane (Charles Stuart). A Map of | **Colombia**, | compiled from the most recent Authorities | and from | Original Documents, Intineraries, &c. | Engraved for Captain Cochrane's Colombia. | by | Sidney Hall. | **London**, Published by Henry Colburn, New Burlington Street, Feby. 5th, **1825**. |

Size, 21 x 24 inches.

Black; engraved boundary.

[*In* Cochrane (C. S.) Journal of a residence and travels in Colombia, 1823–24. 12°, London, 1825, vol. i, p. 1.]

Copies seen, V. C., no. 74, L. C. and H. C.

NOTE.—*Shows a boundary line running nearly due south from the Pomeroon estuary to the Essequibo.*

Codazzi (Agustin). Carta | de la | Republica | de | **Colombia** | **Dividida por Departamentes** | Lith. de Thierry F^{rs} à Paris. |

Size, 17 x 23¼ inches.

Colored; engraved boundaries.

[*In* Codazzi (A.) Atlas Fisico y Politico de la República de Venezuela, dedicado por su autor, el Coronel de Ingenieros Agustin Codazzi al Congreso Constituyente de 1830. fol. **Caracas, 1840** (no. 10)].

Copy seen, G. S.

NOTE.—*Shows the Cruz Cano line.*

Codazzi (Agustin). Canton | de | **Piacoa** | de la | Provincia de Guayana. |

Size, 10 x 13 inches.

Colored; engraved boundary along the Moroco.

[*In* Codazzi (A.) Atlas Fisico y Politico, etc., fol. **Caracas, 1840** (no. 12).]

Copy seen, G. S.

Codazzi (Agustin). Carta del Canton | de | **Upata** | **de la Provincia** | **de Guayana.** | Lith. Thierry frères, Paris. |

Size, 18 x 20¼ inches.

Colored; engraved boundaries.

[*In* Codazzi (A.) Atlas Fisico y Politico de la República de Venezuela, dedicado por su autor, el Coronel de Ingenieros Agustin Codazzi al Congreso Constituyente de 1830. fol. **Caracas, 1840** (no. 16).]

Copy seen, G. S.

NOTE.—*Shows the Cruz Cano boundary line.*

Codazzi (Agustin). Mapa físico | de | **Venezuela** | dividida **en hoyas** | **Hydrográficas.** |

Also on same plate another map entitled:

Mapa físico | de | **Venezuela** | dividida **en tres Zonas.** | Lith. de Thierry frères à Paris. |

Size, 26¼ x 15¼ inches.

Colored; engraved boundaries.

[*In* Codazzi (A.) Atlas Fisico y Politico, etc., fol. **Caracas, 1840** (no. 5).]

Copy seen, G. S.

NOTE.—*The second of the above maps shows the distribution of forests, savannas, and cultivated areas.*

Codazzi (Agustin). Mapa | Físico y Politico | de la | **República de Venezuela** | dedicado por su autor, el Coronel de Ingenieros | **Agustin Codazzi** | al congreso constituyente | de 1830. | **Caracas 1840.** | Carte gravée par A. Benitz. | Lith. de Thierry Frᵉˢ Cité Bergère 1 à Paris. | Carmelo Fernandez del Edard de Laplante sc. [the ornamental title] |

Size, 40 x 62 inches.

Colored, engraved boundary.

Copy seen, L. C.

Coleti (Giandomenico, *s. J.*) **America | Meridionale** | secondo | le ultime Osservazioni | Astronomiche | Delineat | da G. D. C. | **CIↃIↃCCLXX.** |

Size, 17 x 19¾ inches.

Black; no boundaries.

[*In* Coleti (G.) Dizionario storico-geografico dell' America Meridionale, etc., 2 vols. 4°, **Venezia** (1770), vol. i, front.]

Copies seen, V. C., No. 54, and L. C.

Covens (Jean) and **Mortier** (Corneille). Nouvelle Carte Particuliere de **l'Amerique** ou sont exactement marquées les | Iles de Bermude, la Iamaique, Saint Domingue, les Antilles, la Terre Ferme, &c. T. Condet s. | |**Amsterdam, 1757?**]

Size, 20⅞ x 23¼ inches.

Black; engraved and colored boundaries.

Obviously a reduced copy of Popple's large map; produced at Amsterdam by Covens and Mortier.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 34).

NOTE.—*Shows the Popple boundary line.*

Covens (Jean) and **Mortier** (Corneille). **L'Amerique | Meridionale** Dresseé sur les Observations de M^rs^. de L'Academie Royale des Sciences | & quelques autres, & sur les Memoires les Plus recens | par G. **De l'isle. A Amsterdam** | chez I. Covens & C. Mortier. Avec privilege. |

Outside the neat line are these words:

America Meridionalis in Suas Præcipuas Partes Divisa ad usum Serenissimi Burgundiæ Ducis.

Size 18½ x 22¾ inches.

Black; no boundary.

[*In* Delisle (Wm.). Atlas nouveau, etc., 2 vols. fol. Amsterdam, Covens & Mortier [**1741?**], vol. ii (no. 44).]

Copies seen, L. C. and L.

NOTE.—*Copy of the Delisle map of 1700.*

Covens (Jean) and **Mortier** (Corneille). **L'Amerique | Meridionale,** | Dressée sur les Mémoires le plus récens | des Meilleurs Geographes, | & publiée par | Cóvens & Mortier, | a **Amsterdam. MDCCLVII.**

Size, 21¼ x 23 inches.

Black; engraved boundaries, hand colored.

Copies seen G. S. (in collection labeled *American Maps*, vol. i, no. 47; vol. ii, no. 150) and H. C. (marked $\frac{15}{16}$).

Covens (Jean) and **Mortier** (Corneille). Carte particuliere de **l'Amerique Septentrionale.** | A map | of the **British Empire in** | **America** with the French, Spanish | and the Dutch settlements | adjacent thereto by Henry Popple. | at **Amsterdam.** Printed for I. Cóvens and C. Mortier. T. Condet s. | [**1757?**].

Size, 18¾ x 19¾ inches.

Black; engraved and hand colored boundaries.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 63).

NOTE.—*Obviously copied from Popple's index map of 1733. A new engraving with slight changes and altered title.*

Covens (J.) and **Mortier** (C.) *See* **Delisle** (Wm.)

Covens (Jean) and **Mortier** (Corneille) and **Covens** (Jean, jr.) **Carte d'Amerique** divisées en ses principales parties, par G. Delisle, premier geographe du roy, Rectifiée apres les nouvelles observations du S^r^ D'Anville et autres geographes. **A Amsterdam** chez Cóvens & Mortier & Covens junior **1774.** J. Condet, sc.

Outside the neat line are these words:

America accuraté in imperia, regna status et populos divisa, ad usum Ludovici XV Galliarum regis.

Size, —x— inches.

Colored; engraved boundaries.

Copies seen, Rev. J. H. W. Stuckenberg, 17 Arlington street, Cambridge, Mass.; New York World, January 1, 1896, copied from former; Bost. Ath. in Covens and Mortier Atlas.

Cradock (Charles) and **Joy** (William). **South | America.** | J. C. Russell, del^{t}. et sculp^{t}.

Size, 8¼ x 7¼ inches.

Black; engraved boundaries, hand colored.

[*In* Cradock (C.) and Joy (W.) A New General Atlas, etc. 4°, **London, 1808**, pl. 27.]

Copy seen, V. C. no. 56.

NOTE.—*Shows the Cruz Cano boundary line.*

Cruz Cano y Olmedilla (Juan de la). Mapa geográfico | de | America Meridional, | dispuesto y gravado | por D. Juan de la Cruz Cano y Olmedilla, geog^{fo} pens^{do} de S. M. | individuo de la R^{l} Academia de S^{n} Fernando, y de la Sociedad Bascongada de los Amigos del Pais; | teniendo presentes varios Mapas y noticias originales | con arreglo á Observaciones astronómicas, | Año de **1775.** | [**Madrid.**]

Size, 86 x 69 inches.

Black; engraved boundary line.

Copy seen, V. C. No. 20.

NOTE.—*This scarce map shows the boundary line which is referred to in these notes as the Cruz Cano line. Just what that line is may be seen on pl. 50 of the accompanying atlas, where a portion of this large map of South America is reproduced.*

See also **Faden** (William).

Danckerts (Cornelis). Stoel des oorlogs in America waar in vertoont werden alle desself voornaamste eylande nieuwlycks uytgegeven door Cornelis Danckerts.

Insulæ Americanæ nempe: Cuba, Hispaniola, Iamaica, P^{to} Rico, Lucania, Antillæ vulgo Caribæ, Barlo-et sotto-vento, etc. **Amstelodanum** par Cornelium Danckerts. Cum privilegio. [**No Date.**]

Size, 19¼ x 23 inches.

Black; engraved boundaries; hand colored.

Copy seen, H. C. (marked $^{44}/_{55}$).

NOTE.—*Shows the Sanson line.*

Danet (William). **L'Amérique** | méridionale et septentrionale | dressée sur les nouv^{les} decouv^{tes} et dernieres relations | des meilleurs navigateurs decetemps, conformes aux observations astronomiques | par J. Luillier. Mise au jour par le Sr. Guill^{e}. Danet. | A **Paris** | pont Notre Dame a la sphere royale, | avec privilege du roy | **1731.** |

Size, 19 x 27½ inches.
Black; engraved boundaries, hand colored.
Copy seen, L.

NOTE.—*Terre Ferme, the region north of the equator, consists of Castile d'Or west of the Orinoco and Goyane east of it. Paria also appears northwest of the Orinoco delta. Portraits, signs of the zodiac, etc., form the border of the map.*

D'Anville (Jean Baptiste). **Amérique** | **Méridionale** | Publiée sous les auspices | de Monseigneur le Duc d'Orleans | Prémier Prince du Sang | Par le S^{r} D'Anville **MDCCXLVIII** Avec Privilege
Du Dessein du Sr Gravelot | frere de l'auteur.
Gravé par Guill. Delahaye. | A **Paris** | Chez l'Auteur, aux Galeries du Louvre. |

Size, 49 x 30½ inches, in three sheets; engraved boundaries, hand colored.
[*In* D'Anville (J. B.) Atlas Général, (no title page). fol. Paris, 1727–1780].
Copies seen, L. C., H. C. (marked $\frac{15}{2}\frac{7.5}{}$), G. S. (in collection labeled *American Maps*, vol. i, nos. 11–13), and L.

NOTE.—*This map reproduced in the accompanying atlas, plates 39 and 40, contains the original of the so called D'Anville line. According to Clements R. Markham (letter to the commission) there were two editions of this map in 1748. According to Van Heuvel's Eldorado, pp. 24 and 38, a second edition of this map was published in 1760.*

D'Anville (Jean Baptiste). **Hémisphère Occidental** ou du Nouveau Monde | Publié sous les auspices de Monseigneur Louis Philippe Duc d'Orléans, Premier Prince du Sang. | Par le S^{r} D'Anville. * * * **MDCCLXI.** Chés l'Aut^{r}, aux Galeries du Louvre. | [**Paris, 1761**].

Size, 25½ x 24 inches.
Black; engraved boundary, hand colored.
[*In* D'Anville (J. B.) Atlas. No title page.]
Copy seen, L. and L. C.

NOTE.—*Shows the Delisle line of 1722.*

D'Anville (J. B.) *See* also **Bolton** (—)
Harrison (John)
Sayer (Robert)

Delamarche (C. F.) **L'Amérique | septentrionale et méridionale |** divisée suivant | ses différens pays. | Par le Sr Robert de Vaugondy, Géographe. | Se trouve | a Paris | Chez C. F. Delamarche Géographe. | Rue de Foin St Jacques au Collége de Mtre Gervais. | [**Paris.**] Arrivet inv. et Sculp. [**No date; 1767?**]

Size, 39 x 44¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, H. C. (marked $\frac{39}{3}$).

NOTE.—*Shows the Sanson line, engraved and colored; also the Pomeroon line engraved but not colored. A part of this map is reproduced in the accompanying atlas, plate 32.*

Delamarche (C. F.) **Amérique** | ou | Indes Occidentales, | avec les Nouvelles Découvertes du Capitne Cook, | depuis le Détroit de Behrings ou du Nord, | dans l'Océan Pacifique du Nord et Sud. | Par C. F. Delamarche | Géographe et Successeur de Robert de Vaugondy. | A **Paris** | Rue du Foin St. Jacques, au Collège de Mre Gervais. | **1792.** |

Size, 22 x 25¼ inches.
Black; engraved boundary, hand colored, along the Pomeroon river.
[Inserted *in* Le Rouge (George Louis). Atlas Amériquain septentrional, etc. fol. Paris, 1778.]
Copy seen, L. C.

Delarochette (Louis Stanislas D'Arcy). **Colombia Prima | or | South America,** | In which it has been attempted to delineate the Extent of our Knowledge of that Continent. | Extracted chiefly | From The Original Manuscript Maps of | His Excellency the late Chevalier Pinto; | Likewise from those of | João Joaquim da Rocha, João da Costa Ferreira; | El Padre Francisco Manuel Sobreviela, &c. | And From the most Authentic Edited Accounts of Those Countries. | Digested i Constructed | by | The late eminent and learned Geographer | Louis Stanislas D'Arcy de la Rochette. | **London.** | Published by William Faden, | Geographer to His Majesty and to His Royal Highness, the Prince of Wales, June 4th, **1807.** | Cooper script et sculpt. | Published by W. Faden, Charing Cross, Augt 21st, 1807.

The following is an extract from a note upon the map:

"Dutch Guyana has been corrected from a map of the colony of Surinam surveyed by order of Governor von Bottenberg M. S. and

from the edited map of Berbice, Demarary and Essequebo, surveyed by Bouchenroeder. W. Faden."

In 8 sheets, each 24 x 33 inches; folded, in 8° case.
Engraved boundaries, hand colored.
Copies seen, H. C. (marked $\frac{15}{35}$) and V. C. no. 71.

NOTE.—*Shows the Cruz Cano line.*

Delarochette (Louis Stanislas D'Arcy). **South America** | From the latest Discoveries, | Shewing the | Spanish & Portuguese Settlements | according to M^r **D'Anville.** | By De Larochette. | London, Printed for John Bowles at the Black Horse in Cornhil, & | Carington Bowles next the Chapter House in S^t. Pauls church yard. |

Size, 18½ x 22¾ inches.
[*In* Bowles (John). Atlas. fol. **London, 1770.** No title page.]
Copy seen, State Department.

NOTE.—*Shows the D'Anville boundary line.*

Delarochette (L. S. D.) *See* also **Wyld** (J.)

Delisle (William). **L'Amerique** | **Meridionale** | Dressée sur les Observations de M^rs de | l'Academie Royale des Sciences & quelques | autres, & sur les Memoires les plus recens. Par G. de l'Isle Geographe. A **Paris,** | Chéz l'Autheur sur le Quai de l'Horloge | Avec privilege du Roy | pour 20 ans **1700.** |

Size 18 x 23¼ inches.
Black; no boundary.
Copy seen, L. C. (being no. 6 in collection labeled *Old Maps of America*).

NOTE.—*A part of this map is reproduced as plate 36 in the accompanying atlas.*

See also **Covens** and **Mortier.**

Delisle (William). Carte | de la **Terre Ferme** | **du Perou, du Bresil** | **et du Pays des Amozones** | Dressée sur les Descriptions de Herrera | de Laet, et des PP. d'Acuña, et M. Rodriguéz | et sur plusieurs Relations et | Observations posterieures | Par Guillaume **Del'Isle** Geographe | de l'Academie Royale des Sciences | A **Paris** | Chez l'Auteur sur le Quai de l'Horloge | a l'Aigle d'Or avec Privilege du Roy | pour 20 ans **1703.** |

Size, 19 x 25¼ inches.
Black; engraved boundaries, some of them colored.
Copies seen. V. C. x, 5, and L. C. (being no. 9 in collection labeled *Old Maps of America*).

Delisle (William). Carte | de la **Terre Ferme** | **du Perou, du Bresil** | **et du Pays des Amazones,** | Dressée sur les Descriptions de Herrera, | de Laet, et des PP. d'Acuña et M. Rodriguez, | et sur plusieurs Relations et | Observations posterieures. | Par Guillaume **Del'Isle,** Geographe | de l'Academie Royale des Sciences | A **Amsterdam** | chez Iean Cóvens et | Corneille Mortier | Geographes | Avec Privil. | [**No date.**]

Outside the neat line are these words;

Tabula Geographica Peruæ, Brasiliæ & Amazonum Regionis.

Size, 19¼ x 22¼ inches.

Black; engraved boundaries, some of them colored.

[*In* Delisle (Wm.) Atlas nouveau. fol. Amsterdam, J. Covens & C. Mortier (1753 ?), vol. 2, no. 45]

Copies seen, L. C.; G. S. (in collection labeled *American Maps,* vol. i, no. 89; vol. ii, no. 182), and H. C. (marked $\frac{4600}{11}$). H. C. $\frac{4600}{10}$ is another edition of this map (uncolored) published "A Amsterdam chez Pierre Mortier. Avec privilege."

Delisle (William). Tabula Americae Specialis | Geographica | Regni | **Peru,** | **Brasiliæ, Terræ Firmæ** | **& Reg: Amazonum;** secundum relationes | de Herrera, de Laet, & PP. d'Acuña & | M. Rodriguetz, aliorumque observationes | recentiores designata & edita per Guiliem. | **de l'Isle,** Geogr: Reg: Parisiensem, nunc | recusa | per Homañianos Heredes | [No date. **? 1733.**]

Size, 18¾ x 22 inches.

Colored; engraved boundaries.

[*In* Homann (John Baptist). Atlas Geographicvs Maior, etc. fol. **Norimbergae 1759**, no. 148.]

Copies seen, L. C., H. C. (marked $\frac{4600}{13}$), and H. C. Lea, Philadelphia.

NOTE.—*Apparently the northern half of a general map of South America. The southern part is dated 1733.*

Delisle (William). Carte | **d'Amerique** | dressée pour l'usage du Roy | Par Guillaume Delisle premier Geographe de Sa Majesté | de l'Academie Royale des Sciences | A **Paris** | Chez l'Auteur Sur le Quay de l'Horloge | avec Privilege | **1722.** |

Size, 19 x 27 inches.

Black; engraved boundary about parallel to the Essequibo and midway between it and the Orinoco.

Copy seen, H. C. (marked $\frac{3008}{3}$).

NOTE.—*This shows the original Delisle line. A part of this map is reproduced as plate 38 of the accompanying atlas.*

Delisle (William). Carte | **d'Amerique** | Dressée pour l'usage du Roy | Par Guillaume **Delisle** premier Geographe de Sa Majesté | de l'Academie Royale des Sciences. | À **Amsterdam** | Chez Jean Cóvens et Corneille Mortier. | Geographes. | **1739.** |

Outside the neat line are these words:

America Accuraté in Imperia, Regna, Status & Populos Divisa, ad Usum Ludovici XV, Galliarum Regis.

Size, 19½ x 23¾ inches.

Black; engraved boundaries, some of them hand colored.

[*In* Covens (J.) and Mortier (C.) Atlas Nouveau, etc. fol. Amsterdam, (?1741); vol. 2, pl. 28.]

Copies seen, L. C.; V. C., x, 7; Bancroft collection in L. and B. Pub.

Delisle (William). **Carte d'Amerique.** | Dressée pour l'Usage du Roy | par Guillaume **Delisle** premier Geographe de Sa Majeste | de l'Academie Royale des Sciences. | À **Amsterdam** | Chez Jean Cóvens et Corneille Mortier. | Geographes. | [**No date.**]

Outside the neat line are these words:

America Accuraté in Imperia, Regna, Status & Populos Divisa, ad Usum Ludovici XV, Galliarum Regis.

Size, 19¼ x 23¼ inches.

Black; engraved boundaries, some of them hand colored.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 20).

Delisle (William). **Carte** | **d'Amerique** | dressée pour l'usage du Roy. | en **1722.** | Par Guillaume **Delisle** premier Geographe de Sa Majesté | de l'Académie Royale des Sciences. | Et augmentée des Nouv^lles^ Découvertes en **1763**, par Phil. **Buache**, son Gendre. | A Paris | Chez l'Auteur Sur le Quay de l'Horloge avec Privilège. |

Ph. Buache P. G. d. R. d. l'A. d. S. Gendre de l'Auteur. Avec Privilege du 30 Av. **1745.** |

Size, 19¼ x 24¾ inches.

Black; engraved boundaries, some of them hand colored.

[*In* **Delisle** (Wm.) Mappemonde, etc. 1720. Augmentée en **1755** par P. Buache. fol. (**Paris**) no. 74.]

Copy seen, L. C.

Depons (François Raymond Joseph). Carte | de la Capitainerie Générale | de **Caracas** | Comprenant | les Provinces de Venezuela, Maracaibo, Varinas, Cumana, | la Guiane et Isle de la Marguerite. | Pour servir au Voyage à la partie Orientale de la Terre Firme |

dans l'Amérique Méridionale fait en 1801, 1802, 1803 et 1804, | par F. de Pons ex Agent du Gouvernement Français à Caracas. | Dressée par J. B. Poirson, Ingénieur Géographe, | en **1805**. | Gravée par J. B. Tardieu, Rue St Jacques vis-à-vis celle des Mathurins N° 61. |

Size, 16¼ x 26 inches.

Black; engraved boundaries.

[*In* Depons (F. R. J.) Voyage a la partie orientale de la Terre-Ferme, etc., 1801–1804. 8°, **Paris, 1806**, vol. i, p. 110.]

Copies seen, L. C. and V. C., x, 11.

NOTE.—*Shows the Cruz Cano boundary line.*

Depons (François Raymond Joseph). Carte | de la Capitainerie Generale | de **Caracas** | Comprenant | les Provinces de Venezuela, Maracaibo, Varinas, Cumana, | la Guiane et Isle de la Marguerite, | Pour servir au Voyage à la partie orientale de la Terre Ferme | dans l'Amerique Meridionale fait en 1801, 1802, 1803 et 1804, | par F. de Pons ex Agent du Gouvernement Français à Caracas. | Dressée par J. B. Poir[s]on Ingenieur Geographe | en **1805**. | Engd. by P. Maverick, New York. | Water by B. Tanner. | Published by I. Riley & Co., April, **1807**. |

Size, 16¼ x 25¼ inches.

Black; engraved boundaries.

[*In* Depons (F. R. J.) A Voyage to the eastern part of Terra Firma, etc., in three vols., 12°, **New York**, Riley & Co., **1806**, vol. i, front.]

Copy seen, L. C. and State Department.

NOTE.—*Shows the Cruz Cano boundary line.*

Dessiou (Joseph). A | New Chart | of the | **West Indies**, | **Gulf of Mexico**, | **and** | **Northern Provinces** | **of** | **South America**; | Compiled | From the most recent Spanish and other Surveys, | by Joseph Dessiou. | Published 1st March 1813, by James Whittle and Richard Holmes Laurie, No. 53 Fleet Street, **London**. | Improved Edition, with additions to **1818**. |

The dedication is as follows:

Not | only in Testimony of Respect, | Individually, | But of Admiration for their Generous and | Patriotic Exertions, | In support of the National Honor with the defence | of Great Britain & her Colonies, | This Chart is Dedicated | To | the Merchants and Underwriters | Assembling at Lloyd's Coffee House, London; | By their most obedient Servants, | Laurie & Whittle. |

Size, 45¾ x 56¼ inches, in two sheets.

Black; engraved boundaries.

[*In* (Whittle (J.) and Laurie (R. H.) The West-India Atlas; etc. fol. London, 1818, nos. 7 and 8.]

Copy seen, L. C.

NOTE.—*The southern sheet of this map contains the following note: "Published August 21st, 1809, by Richd H. Laurie & James Whittle, Fleet Street, London." It also shows parts of a boundary line changed from Cape Nassau to Barima point.*

Dirwald (Joseph). Charte | von | **Süd America** | nach Arrowsmith von Humboldt und | anderen verlässigen Hülfsmitteln entworfen | von | Joseph Dirwald. | **1823.** | Verlegt in **Wien** bey Tranquillo Mollo. |

Also title in French as follows:

Amerique | Meridionale | d'apresArrowsmith et de Humboldt &c. &c. | 1823. | à Vienne chez Tranquillo Mollo. |

Size, 34½ x 44⅓ inches.

Black; engraved boundaries, hand colored.

Copies seen, V. C., x, 15 and L. C.

NOTE.—*Shows the Cruz Cano line.*

Dixon (George G——). Part of | **British Guiana and Venezuela.** | The geographical journal, **1895.** | Published by the Royal Geographical Society. | Vincent Brooks, Day & Son Imp. | B. V. Darbishire |

Size, 9x18 inches.

Colored.

Scale, 1:1500000.

[*In* Royal Geogr. Soc. Journal. 8°, **London**, 1895, Apr. vol. 5, no. 4, p. 408.]

NOTE.—*The boundary is that shown on the 2d ed. of the great map of the colony. See accompanying atlas, map 1. The legend contains these words: "Provisional Boundary as shown on Sir Robert Schomburgk's Map (1875)."*

Dixon (George G——). Mr. G. G. Dixon's | **Compass-Survey** | **of the** | **River Barima** | From the Eclipse Falls to the Source. | The geographical journal **1895.** | Published by the Royal Geographical Society. | Vincent Brooks, Day & Son Imp. | B. V. Darbishire. |

Size, 5½ x 16⅔ inches.

Black; no boundaries.

Scale, 1:250000.

[*In* Royal Geogr. Soc. Journal. 8°, **London**, 1895, Apr. vol. 5, no. 4, p. 408.]

NOTE.—*Shows placer claims, author's route, etc.*

Ducoudray Holstein (*Gen.* H. L. Villaune). **A Map of | Colombia, |** Compiled from the most recent Authorities | and from | original Documents, Itineraries, &c. | **London,** Published by Colburn and Bentley New Burlington Street, Novr. **1829.** | Engraved by Sidy. Hall. |

Size, 21 x 24 inches.

Black; engraved boundaries.

[*In* Ducoudray Holstein (*Gen.* H. L. V.) Memoirs of Simon Bolivar, etc. 2 vols. 12°, London, 1830, vol. i, front.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line very greatly changed.*

Dufour (A. H.) **Amérique | du Sud |** Par A. H. Dufour. | **Paris 1830.** | Chez l'Auteur, Rue d'Enfer, No. 12, | et chez Ch. Simonneau, rue de la Paix, No. 6, | chez Dufour, libraire, Bruxelles. | **Flahaut** sculpt. Warin script. |

Size, 35 x 24½ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 4.

NOTE.—*Shows the Cruz Cano line.*

Dunn (Samuel). **America** | North and South | and the | **West Indies;** | with the Atlantic, Aethiopic | and Pacific Oceans: | **wherein** are Distinguished All the Discoveries | lately made by the **English** and the Spaniards. | By Samuel Dunn, | Mathematician. |**London.**] Printed for Robert Sayer, | as the Act directs, 10 June, **1786.** |

Size, 12 x 17¼ inches.

Black; engraved boundaries, hand colored.

[*In* Dunn (Samuel). A new atlas of the mundane system, etc. 3d ed. fol. London, Laurie & Whittle (1789?), pl. 38.]

Copy seen, L. C.

NOTE.—*Shows the D'Anville line of 1748.*

Dunn (Samuel). **South America** | as divided | amongst the Spaniards | and the Portuguese, | the French and the Dutch | By Samuel Dunn, | Mathematician. | **London:** Printed for Robt. Sayer, No. 53 in Fleet Street | as the Act directs, 10th Septr. **1787.** |

Size, 12 x 17¼ inches.

Black; engraved boundary, hand colored.

[*In* Dunn (Samuel). A new atlas of the mundane system, etc. 3d ed. fol. London, Laurie & Whittle, (1789?) pl. 42.]

Copy seen, L. C.

NOTE.—*Boundary copied from D'Anville, 1748.*

Du Val (P.) Planisphere, ou **Carte Generale | du Monde.** | Par P. Du-Val, Geographe du Roy. | A **Paris** | Chez l'Auteur, sur le Quay de l'Orloge, | prés le Palais. Avec Privilege de Sa Majesté pour vingt ans. | **1676.** | Lud. Cordier sculp. |

Size, 13 x 23 inches.

Black; engraved boundaries, hand colored.

Copy seen, L. C. (being no. 2 of a collection labeled *Cartes receuillies* en un tome en 1679, *par. J. Cappel*).

NOTE.—*The entire region between the Amazon and Orinoco is called Guaiane. In its northwestern part is the word Caribes. The region west of the Orinoco is Castille d'or.*

Du Val (P.) **La Guaine** ou Coste sauvage; autrement El Dorado, et Pais des Amazones. **Paris, 1654.**

Not seen. Title from Brit. Mus. catalogue.

Duvotenay (Th.) **Colombie | et | Guyanes.** | Par Th. Duvotenay, | Geographe. |

Size, 7¼ x 9 inches.

Black; engraved boundaries.

[*In* L'Univers. (Vol. 24). Colombie et Guyanes, Par M. C. Famin. 12°. **Paris, 1839,** at end.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Duvotenay (Th.) **Colombia | e | Guiana** | Per il Geografo | Th. Duvotenay | Calcolitª. Fratelli Doyen, **Torino.** | [**No date.**]

Size, 9 x 12 inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., no. 33 (being collection of Italian maps labeled *Atlante Geografico*).

NOTE.—*Shows the Cruz Cano line.*

Eastwick (Edward Backhouse). See **Rosa** (R.)

English (The) **Pilot.** A Draught of the **Coast of | Guiana,** | From the River | Oronoque, | To the River | Amazones. |

Size, 17¾ x 22½ inches.

Black; no boundary.

[*In* English (The) Pilot. The fourth book. Enlarged and corrected. fol. **London, 1758,** p. 50.]

Copy seen, L. C.

NOTE.—*Contains two insets or sub-sketches showing the Orinoco and Surinam rivers.*

English (The) **Pilot.** A Draught of the **Coast of | Guiana** | From the River | Oronoque | To the River Amazones |

Size, 17 x 21½.
Black; no boundary.
[*In* English (The) Pilot. The Fourth Book; much enlarged and corrected. fol. **Dublin, 1767**, p. 54.]
Copy seen, L. C.
NOTE.—*Seems to be a new engraving of the preceding.*
See also Waddington (R.)

Faden (William). Mapa | Geografico | de | **America Meridional,** | Dispuesto y Gravado | Por D. Juan de la Cruz Cano y Olmedilla, Geog^fo pens^do de S. M. | Individuo de la R^l Academia de S^n Fernando, y de la Sociedad Bascongada de los Amigos del Pais; | teniendo presentes Varios Mapas y noticias originales | con arreglo á Observaciones astronómicas, | Año de 1775. |

Nota.— | Este Mapa de los Dominios Españoles y Portugueses en America Meridional, es una **copia literal y exacta de** un Mapa español mui raro; compuesto y gravado en Madrid, año 1775, de orden del Rey de España, por Dn. Juan de la **Cruz Cano y Olemdilla,** Geog^fo Pens^do de S. M. C. | **Londres** | Publicaddo per Guillermo Faden, Geografo del Rey, y del Principe de Gales, | Enero 1. de **1799.** |

In six sheets, each 24½ x 26 inches.
Engraved boundary; hand colored.
Copies seen, L. C., State Dept., H. C. (marked [illegible]), and B. Ath.
NOTE.—*Shows the Cruz Cano line.*

Fer (Nicolas de). La partie meridionale de l'Amerique | appelleé | **Terre Ferme** | ou se trouve | les provinces ou grands gouvernemens de | la Guiane et de la Nouvelle Grenade | cette Derniere Province Subdiviseé en | Popaya, Cartagene, S^te. Marthe, Rio de la Hacha, Venezuela, | et Nouvelle Andalousie. | Le pays et le cours de la riviere des Amazones | Au Sud de cette Carte, | Comme l'istme de Panama, au Nord-Ouest, si trouvent | assé bien Detaillez. | Dressée | Sur les Diverses Relations des Flibustiers et Fameux Voyageurs | Par N. de Fer. geographe de sa Majesté Catolique **1719.** A **Paris** Chez I. F. Benard gendre | de l'Auteur dans l'Isle du Palais sur le Quay de | l'Orloge a la Sphere Royale, 1719. |

Size, 18¾ x 25 inches.
Black; engraved boundary, hand colored.
Copy seen, V. C., x, 6.

Finley (Anthony). Map | of | **South** | **America** according to the | Latest and | Best authorities. | **1826** | D. H. Vance del. | J. H. Young sc. | Published by A. Finley, Philad[a]. |

Size, 21¾ x 17 inches.
Colored; engraved boundaries.
[*In* Finley (A.) A new American Atlas, etc. fol. Philadelphia, 1826, no. 15.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Finley (Anthony.) Map | of | **South America.** | Carefully Compiled | from the | latest maps & charts | and other | Geographical Publications. | **Philadelphia**: | Published by Anthony Finley. | **1829** | Engraved by J. H. Young and F. Dankworth Philad[a]. | Entered according to Act of Congress September 22nd 1829 by Anthony Finley of the State of Pennsylvania. |

Size, 40 x 29 inches.
Colored; engraved boundary.
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Fitzgerald (C. C.) *See* **Orinoco Company.**

Florentius (Arnoldus). **Delineatio** omnium orarum totius | **Australis partis Americæ, dictæ Peruvi** | **anæ** à R. de la Plata, Brasiliam, Pariam & Cas | tellam auream unà cùm omnibus Insulis Antillas | dictis, Hispaniolam, item & Cubam comprehendentis, | usq, ad promont: floridæ, vulgo, cabo de le florida: Item | Isthmi inter Panamam & Nombre de dios, Terræ Peru | auriferæ, cum ejus metropoli Cusco, & cõmodissimo | portu Limæ: Orarum etiam Chilœ, freti inter terram Pa | tagonum & terram del fuego, vulgò estrecho de Fernan | do Magallanes. Et omnium portuum, Insularum, scopu | lorum, pulvinorum, & vadorum, tractusq vento | rum, ex optimis Lusitanicis cartis hydro | graphicis delineata atq emendata. | **Arnoldus Florentius** à **Langren**, | Author & scalptor.

Has also the following title in Dutch:

Afbeeldinghe van alle de Zee-custen des gheheelen | Zuyderschen deels van America, genaempt Peruvia | na, beginnende, (etc.) alles seer correctelijck ghe | trocken eñ na d'allerbeste Spaensche pas-caerten | ouersien ende verbetert.

Size, 15¼ x 22 inches.
Black; engraved boundaries.

[*In* **Linschoten** (J. H.) Descriptio totivs Gvineæ tractvs, Congi, (etc.). fol. **Hagæ-Comitis, 1599**, p. 36.]

Copy seen, L. C.

NOTE.—*The largest, most detailed, and best map of its time.*

Forlani (Paulo di). "La descrittione di tvtto il **Perv.**" by "Paulo di Forlani da **Verona**" [**1566**].

Fac-simile, 9 x 12¼ inches, in Nordenskjold's Fac-simile Atlas. fol. Stockholm, 1889, p. 127, from Lafreri's Atlas.

Copy seen, B. Ath. and G. S.

NOTE.—*The names Guiana and Caribana are wanting. The whole South American continent is called Peru. New Andalusia is east of the Essequibo.*

Frijlink (Hendrik). **Zuid Amerika.** | Te **Amsterdam**, bij | Hendrik Frijlink. | **1854.** | H. Frijlink dir. | J. C. Zurcher sculps. |

Size, 18¼ x 14½ inches.

Black; engraved boundaries, hand colored.

[*In* Frijlink (H.) Nieuwe Hand-atlas der Aarde, etc. fol. Amsterdam, 1855, no. 22.]

Copy seen, V. C., no. 62.

NOTE.—*Contains two insets; one of Curaçao island, the other of Suriname (Nederlandsch Guyana).*

Geographical Annual. Brazil, | with | **Guiana** & **Paraguay.** | J. Yeager sc. |

Size, 5½ x 3½ inches.

Colored; engraved boundaries.

[*In* Geographical (The) Annual for 1834. Family cabinet atlas. 2d American edition. 12°, **Philadelphia, 1834**, pl. 99.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Geographical Annual. Colombia | J. Yeager sc. |

Size, 3½ x 5½ inches

Colored; engraved boundaries.

[*In* Geographical (The) Annual for 1834. Family cabinet atlas. 2d Am. edition. 12°, **Philadelphia, 1834**, pl. 95.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Geographical Annual. South America. | J. Yeager sc. |

Size, 5¼ x 3½ inches.
Colored; engraved boundaries.
[*In* Geographical (The) Annual for 1834. Family cabinet atlas. 2d Am. edition. 12°, **Philadelphia, 1834**, pl. 94.]
Copy seen, L. C.

NOTE.—*Engraved boundary from Barima point to junction of Mazaruni and Cuyuni rivers.*

Gignilliat (T. Heyward). Map of a portion | of | **Venezuela** | **and** | **British Guiana** | showing | the advance of English claims | on | Venezuelan Territory | compiled & drawn | by | T. Heyward Gignilliat | **1895** | Copyrighted, **1895**, by T. Heyward Gignilliat, **Washington, D. C.** | The Norris Peters Co., Photo-Litho., Washington, D. C. |

Size, 16¼ x 11¼ inches.
Colored.
Copies seen, L. C., War Dept. and State Dept.

NOTE.—*There is another (perhaps more than one other) edition of this, dated 1896.*

Gnocchi (Giacomo). **America** | **Meridionale** | Naymiller dis. | Prada inc. | **Milano** presso Giacomo Gnocchi Editore Librajo | 9 | [**No date, 1856–1863?**]

Size, 16 x 11½ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C. no. 66.

NOTE.—*Shows the Cruz Cano line.*

Gottfriedt (Johan Ludwig). *See* **Abelin** (Johann Philipp).

Great Britain. Admiralty. Chart N° 1801. South America | East coast | sheet 1 | **Trinidad to Surinam** | 1852 | **London** Published according to Act of Parliament at the Hydrographic Office of the Admiralty April 26th 1852. | Large corrections June 80. Octr 1887. April 1888. | Small corrections; v, 81; viii, 83; v, 84; xii, 89; iii. 90, ii, **91.** | J. & C. Walker Sculp^{t}. [No.] 1801. |

Size, 18¼ x 25¼ inches.
Black; engraved boundary.
Copy seen, U. S. Hyd. Office.

NOTE.—*A part of this chart is reproduced on maps 1 to 15 of the accompanying atlas.*

Great Britain. Map of **Surinam.** | Extract from a map of the British Empire in America with settlements adjacent | thereto, executed with the approbation of the lords commissioners of trade and | plantations, etc. By Edmund Halley, F. R. S., Astronomer Royal. 1733. | Record Office, Board of Trade maps case 35 No. 4. | Lithographed at the Intell. Div. W. O. Jany. **1896.** |

Size, 11 x 17 inches.

Black; engraved and colored boundary.

[*In* Great Britain. Blue Book. Venezuela, No. 1 (**1896**). Appendix No. III. Maps to accompany documents and correspondence relating to the question of boundary between British Guiana and Venezuela. fol. **London. 1896.**]

NOTE.—*Not by Halley. This map is reproduced as plate 33 of the accompanying atlas.*

Grynæus (Simon). **Typvs cosmographicvs vniversalis** |

Size, 14 x 21¾ inches.

Black; no boundaries.

[*In* Grynæus (S.) Novvs orbis regio, etc. fol. **Basle, 1532**, p. 1.]

Copy seen, L. C.

NOTE.—*An interesting and rare map of the whole world. Supplied by Apianus in 1532 for the Novus orbis of Grynaeus (sometimes misspelled Gyrnaeus) above cited. Two small boys or angels furnish the motive power which turns the earth. South America is shown as an island called America terra nova. Only three other names appear in South America, viz: towards the south, Prisilia (= Brazil), to the west, Parias and on the north, Canibali.*

Gumilla (*rev.* Joseph, *s. J.*). Mapa | de la | provincia, | y missiones | de la compañia de IHS del del **Nuevo Reyno de Granada.** P. J. G. Delineavit. | Paulus Minguet sculp. Matriti. |

Size, 11½ x 16½ inches.

Black; engraved boundary.

[*In* Gumilla (J.) El Orinoco ilustrado, etc. sm. 4°. **Madrid, 1741.** p.1.]

Copies seen, L. C.; 2d ed., 2 sm. 4° vols., **Madrid, 1745**, in H. C.; new ed., 1781, in H. C.; and another ed., Barcelona, 1791, in L. C. and Bost. Pub. This map also appears in **Cassani** (*rev.* Joseph) Historia de la Provincia de la compañia de Jesus, etc. 4°, Madrid, 1741, p. 1.]

Copy seen, L. C.

NOTE.—*This map is reproduced as plate 56 of the accompanying atlas.*

Gumilla (*rev.* Joseph, *s. J.*). Carte de la province et des Missions de | la Comp^e de Jesus du **Nouveau Roy^e de Grenade** |

Size, 11½ x 16½ inches.

Black; engraved boundary.

[*In* Gumilla (J.) Histoire naturelle, etc., de l'Orénoque. * * Traduite de l'Espagnol sur la 2e ed. par M. Eidous. 16°, **Avignon, 1758**, vol. 1, p. 1.]

Copy seen, L. C.

Güssefeld (F. L.) Charte | von | **America** | nach astronomischen Bestimmungen, | den neuesten Nachrichten und Charten | entworfen von | F. L. Güssefeld | **Nürnberg** bey den Homanni | schen Erben **1796.** | Mit R. K. allergnädigster Freyheit. | I. Rausch sc. |

Size, 23 x 17¾ inches.

Colored; engraved boundary.

Copy seen, H. C. (marked $^{30}_{6}{}^{16}$).

NOTE.—*Boundary along the Pomeroon river. A part of this map is reproduced in the accompanying atlas, pl. 53.*

Güssefeld (F. L.) Charte von **Süd-Amerika** nach den bewährtesten Astronomischen Bestimmungen und den vorzüglichsten Charten, die grenze zwischen den Spanischen und Portugiesischen Besitzungen aber, dem Tractat von St. Ildefonse v. J. 1777 gemäss entworfen von F. L. Güssefeld. **Nürnberg**, bei den Homannischen Erben **1797.**

Not seen. Title from Mapoteca Colombiana, p. 93.

Guthrie (William), and others. **America Meridionale | 1803 |**

[*In* Guthrie (Wm.), Morse, and others. Nuova Geografia, etc. **Roma**, 1803, vol. viii.]

Copy seen, tracing in V. C. no. 63.

NOTE.—*Shows the Cruz Cano line.*

Guthrie (William), and others. **Nuovo Regno | di Granata | Nuova Andalusia | e Guyana. | Roma 1803. |**

[*In* Guthrie (Wm.), Morse, and others. Nuova Geografia, etc. Roma, 1803, vol. viii.]

Copy seen, tracing in V. C. no. 63.

NOTE.—*Shows the Cruz Cano line.*

Guthrie (W.) *See* also **Russell** (J.)

Haas (John Matthew). **Americæ | Mappa generalis** | Secundum legitimas projectionis stereo | graphicæ regulas relationesque recentis | simas et observationes sociorũ Acad. reg. sc. | quae Parisiis est aliorumque auctorum nec | non secundum mentem D. I. M. Hassi M. P. P. | in partes suas methodicas divisa nunc concin | nata et delienata ab

Aug. Gottl. Boehmio. | Phil. Magistro. In lucem proferentibus | Homannianis Heredibus. | A. **MDCCXXXXVI. Nuremberg.**|

Size, 18¼ x 20¾ inches.

Colored; engraved boundary.

[*In* Homann (J. B.) Atlas geographicvs maior, etc. fol. Norimbergæ, 1759, no. 136.]

Copies seen, L. C.; (in atlas and in collection labeled *Old Maps of America*, vol. i, no. 18); and H. C. Lea, Philadelphia.

Hadfield (J.) Map of | **British Guiana** | From the latest Surveys of | Schomburgk, Owen, Hillhouse & others; & | Those of | Hancock, Van-Cooten, Bouchenroeder, & Bercheyck, | Where not refuted by the former | Shewing the Parochial divisions, as well as the | present extent of Cultivation of the Staple Productions; | & the tracts of such that have been abandoned within | the last 30 Yrs. | Respectfully dedicated | to His Excellency | Henry Light Esqr. | Governor in & over said Colony | By His Excellency's | Very Obedient | Humble Servant | J. Hadfield, Crown Surveyor. | **George Town** Demerara | 1st Augt., **1838.** | **London**, Published Augt. 1st, **1842**, by John Arrowsmith, 10 Soho Square.

Size, 16 x 18 inches.

Black; no boundaries.

[*In* Arrowsmith (John). The London Atlas of Universal Geography, etc. fol. London, 1842, at end.]

Copy seen, State Dept.

Hall (Sidney). **Brazil** | **and** | **Paraguay.** | By Sidney Hall. | **London,** Longman & Co. |

Size, 20 x 16¼ inches.

Colored; engraved boundary.

[*In* Hall (S.) A new general atlas, etc. new ed. fol. London (**1857**) pl. 51.]

Copy seen, L. C.

NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Hall (Sidney). **South America.** | By Sidney Hall. | **London,** Longman & Co.

Size, 20¼ x 16¼ inches.

Colored; engraved boundary.

[*In* Hall (S.) A new general atlas, etc. new ed. fol. London, (**1857**) pl. 49.]

Copy seen, L. C.

NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Hall (Sidney). **South America.** | Drawn & engraved | by Sid^{y} Hall | **London,** Published by Longman, Rees, Orme, Brown & Green, Paternoster Row. [**No Date.**]

Size, 6 x 7¼ inches.
Black; engraved boundary.
Copy seen, L. C.

NOTE.—*Shows a boundary starting from near Cape Nassau and running a little west of south to the mountains.*

Hall (Sidney). **Venezuela, New Granada,** | & **Ecuador.** | By Sidney Hall. | **London,** Longman & Co. |

Size, 16½ x 20¼ inches.
Colored; engraved boundary.
[*In* Hall (S.) A new general atlas, etc. new ed. fol. London (**1857**), pl. 50.]
Copy seen, L. C.

NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Hall (Sidney). **Western Hemisphere.** | By Sidney Hall. | **London,** Longman & Co. |

Size, 16¾ x 18¾ inches.
Colored; engraved boundary.
[*In* Hall (S.) A new general atlas, etc. new ed. fol. London (**1857**), pl. 2.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Halley (Edmund). *See* **Great Britain.**

Halliday (Sir Andrew). Position and supposed Extent of **British Guiana.**

Size, 7 x 8 inches.
Black; engraved boundaries.
[*In* Halliday (Sir A.) The West Indies, etc. 12°, **London, 1837,** p. 96.]
Copy seen, L. C.

NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Harcourt (Robert). *See* **Aa** (Pieter van der).

Harris (C. Alexander). Sketch map of the | **Territory in Dispute** between | Venezuela and British Guiana. | by C. Alexander Harris of the C. O. April, **1888.** | I. D. W. O. 1142^{h} | Dangerfield Lith. 22, Bedford S^{t}, Covent Garden. 16550. $^{6}/_{88}$ | Heliozincographed at the Ordnance Survey Office Southampton. 1896. |

Size, 16½ x 19 inches.
Black; colored boundaries.

[*In* Great Britain. Parliament. Venezuela. No. 1. (1896.) Documents and correspondence relating to the question of boundary between British Guiana and Venezuela. fol. **London, 1896.** p. 413.]

Harrison (John). **South** | **America** | drawn from the latest & best | authorities. | T. Kitchin del. | Engraved by G. Terry. | Engraved for Jno. Harrison. [**London.**] No. 115 Newgate Street, Oct. 1st, **1787.** |

Size, 13¼ x 15¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C.

NOTE.—*Bad copy of the D'Anville line.*

Harrison (John). A Map of **South America.** By Mons. D'Anville. Drawn and engraved for J. Harrison. **London,** Jany. 1, **1791.**

Size, 20 x 29 inches.
Colored.
Copy in Astor Library; *not seen.*

Hebert (L. J.) Map of | **British Guiana** | constructed from the | Surveys and Routes of | Captn Schomburgk, | and other documents in the possession of the | Colonial Department. | by | L. J. Hebert | of the Quarter Master General's Office, | Horse Guards | April **1842** | Intelligence Branch N° 626A Sheet I. (N° 626B Sheet 2.) | Lithd at the Intelligence Branch, War Office. March **1887** (Sheet I; April 1887, Sheet 2.) | [**London**].

In two sheets; size of sheet 1 (northern part), 22¾ x 34¾ inches; size of sheet 2 (southern part), 23½ x 34¾ inches.
Colored; engraved boundary.
Scale, 1 : 900000 or 14.2 miles to one inch.

NOTE.—*The boundary is that shown on the 2d edition of the great map of the colony. (See accompanying atlas pl. 49.) Sheet 1 has the following note as to boundary: "The Pink Line is that which was surveyed and proposed by Sir R. Schomburgk, but the boundary of the Colony claimed by Her Majesty's Government lies considerably to the Westward of that line."*

Hilhouse (William). Map of **British Guiana,** by William Hilhouse, sworn land surveyor. **Demerary, 1851.** And by him dedicated as an honorary member to the Philosophical and literary society of the Bristol institution.

London, published by Jas. Wyld, 1851.
American Geographical Society, New York. *Not seen.*

Hilhouse (William). **Part of | British Guyana.** | Published for the Journal of the Royal Geographical Society by John Murray Albemarle S^{t} **1834** | C. Bradbury. |

Size, 4½ x 7 inches.
Black; no boundaries.
[*In* Royal Geographical Society Journal. 8°, **London, 1834**, vol. 4, at end.]
Copies seen, L. C., H. C.

NOTE.—*Shows the coast region between the Essequibo and Orinoco, called by Hilhouse Warow Land.*

Hilhouse (William). The | **Massaroony river,** | South America. | By W. Hilhouse, Esq. | **1830.** | Published for the Journal of the Royal Geographical Society by John Murray Albemarle St **London, 1834.** | C. Bradbury |

Size, 7½ x 8½ inches.
Black; no boundaries.
[*In* Royal Geographical Society Journal. 8°, **London, 1834**, vol. 4, at end.]
Copies seen, L. C., H. C.

Hinton (J.) *See* **Universal Magazine.**

Hire (*capt.* John R.) Sketch | of | **Waini, Barima, Amacura and Pomeroon** Rivers |

Size, 8½ x 11¼ inches.
Blue print showing settlements and police stations.
Copy seen, U. S. Hyd. Office Archives, sec. II, box 5, index 2157. Rec^{d}. Feb. 5, **1891**, from Capt. John R. Hire, of the brigantine Alejo 1.

Hobbs, (J. S.) A chart of the | **Coast of Guayana**, &c. | with enlarged plans of the principal harbours, | Compiled from the latest Authorities, by J. S. Hobbs, F. R. G. S. Hydrographer. | Published by C. Wilson, [late J. W. Norie & Wilson,] 156 Minories E. | With book of directions. | **1896.** | **London.** | Corrected to Jan., 1895. |

Size, 25 x 32 inches.
Black; no boundaries.
Copy seen; J. J. Storrow.

Hohenkerk (L. S.) *See* **Perkins** (H. J.)

Holmes (*sir* W. H.) *See* **Schomburgk** (*sir* Robt H.)

Homann Heirs and Homann (J. B.) *See* **Delisle** (Wm.)

Hondius (Henry). **America** | noviter delineata | Auct. Henrico Hondio. | **1631.** |

Size, 15 x 19¾ inches.

Black; engraved boundary.

Copy seen, L.

NOTE.—*Guiana is an enclosed interior region, Caribana is a coastwise region to the eastward.*

See also **Mercator** (G.).

Hondius (Jodocus). **America.** | Jodocus Hondius excudit **Amsterodami.** |

Size, 14¾ x 19¾ inches.

Hand colored boundaries.

[*In* Mercator (G.) Gerardi Mercatoris atlas sive cosmographicæ meditationes de fabrica mvndi et fabricati figvra. 10th ed. fol. sumptibus et typis æneis Henrici Hondij, Amsterodami, An. D. **1628**, p. 688.]

Copies seen, L. C.; another colored copy (in collection labeled *American Maps*, vol. ii, no. 141,) in G. S.; an uncolored copy in V. C., x, 2.

Hondius (Jodocus). **America** | **Meridi** | **onalis.** |

Size, 5¾ x 7¼ inches.

Black; engraved boundaries.

[*In* Mercator (G.) Historia mundi; or Mercator's atlas. * * By the studious industry of Ivdocvs Hondy. Englished by W[ye] S[altonstall]. sm. fol. **London, 1635**, p. 921.]

Copy seen, L. C.

NOTE.—*Guiana is an interior region enclosed by an engraved boundary. Caribana lies east of it.*

Hondius (Jodocus). Nieuwe Caerte van het wonderbaer ende goudrijcke landt **Guiana** gelegen onder de Linie Aequinoctiael, tusschen Brasilien ende Peru: nieuwelick besocht door Sir Walter Ralegh ridder van Engelant in het jaer 1594, 95 ende 1596. **Amstelodami** excudit Jod. Hondius. [**1604?**]

Size, 14¼ x 20¾ inches.

Not seen. Title from Mapoteca Colombiana, p. 103.

Hulsius (Levinus). Nova et exacta **delineatio Americae partis avstralis,** qve est: Brasilia, Caribana, Gviana regnūm Noūūm Castilia | del oro, Nicaragva, Insūla Antillas et Perv. Et sūb tropico Capricorni Chile, Rio della Plata, Patagonv, & Fretv Magellanicv. | **Noribergae** per Leuinūm Hūlsiūm. Anno. **1599.**

Size, 12¼ x 18 inches in two sheets; north of Tropic of Capricorn, 10 x 12¼ inches, and south of it, 8 x 12¼ inches.

Black; no boundaries; resembles DeBry of 1599.

[*In* Hulsius (L.) Vierte schiffart warhafftige historien einer wunderbaren schiffart welche Ulrich Schmidel von Straubing von anno 1534 biss anno 1554 in Americam oder newenwelt bey Brasilia und Rio della Plata gethan. * * * Durch Levinvm Hvlsivm. sm. 4°. Noribergae 1599. front.]

Copy seen, Lenox; also in Bost. Ath. 2 copies of northern part.

Another copy, dated 1599; *in* the latin edition of above. sm. 4° **Noribergae, 1599**, p. 2.

Copy seen, Lenox.

Another copy in two parts, the northern dated **1599**, the southern numbered 2 and dated **1602**; contains changes from earlier edition; *in* the German edition of above. sm. 4° **Noribergae**, 1602, at end.

Copy seen, Lenox.

Another copy, exactly like the last, in 2 parts dated **1599 & 1602**; *in* the German edition of above. sm. 4° **Noribergae**, 1612, p. 6.

Copy seen, Lenox.

Another copy of northern part, dated **1599**.

[*In* Brevis & admiranda descriptio regni Gvianæ, avri abvndantissimi, in America, sev novo orbe, svb linea aeqvinoctilia siti: quod nuper admodum, annis nimirum 1564, (sic) 1595 et 1596. Per generosum dominum, Dn. Gvalthervm Ralegh eqvitem Anglum detectum est: paulò post jussu ejus duobus libellis comprehensa: ex quibus Iodocvs Houdivs tabvlam geographicam adornavit, addita explicatione Belgico sermone scripta: nunc verò in Latinum sermonem translata, & ex variis authoribus hinc inde declarata. Noribergae, impensis Levini Hulsii, D,M.XCIX. sm. 4°, p. 10.]

Copy seen, Lenox.

Another copy of northern part dated 1599; *in* German edition of above. sm. 4° **Noribergae, 1599**, at end.

Copy seen, Lenox.

Another copy of northern part dated 1599; *in* German edition of above. sm. 4°, **Noribergae, 1601**, front.

Copy seen, Lenox.

Another copy of northern part dated **1599**; *in another* German edition of above. sm. 4°, **Noribergae, 1601**, front.

Copy seen, Lenox.

Another copy of northern part dated 1599; *in* German edition of above. sm. 4°, **Noribergae, 1603**, front.

Copy seen, Lenox.

Another copy of the whole map together, the northern part dated 1599, the southern 1602; *in* German edition of above, **Franckfurt am Mayn, 1612**, front.

Copy seen, Lenox.

Humboldt (Alexander von). **General-charte | von | Columbien |** nach | astronomischen Vermessungen | des | Freyherrn v. Humboldt. | grav. v. E. K. Frühwirth, am Josephstädter Glacis No. 45 2^{t} Stock. |

Size, 13 x 16¼ inches.

Black; engraved boundary.

[*In* Bibliothek naturhistorischer reisen für die reifere jugend. 16°, **Wien, 1830.** vol. 2, end.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

See also **Brué** (A. H.)

Iacobs (Theunis). Pascaerte | vande | **Caribes** | S. Iuan de Porte Rico, de oosthoeck van I. | Spagnola als mede de vaste cust van | Nueva Andalusia met eylanden daer om | trent gelegen, Nieu-lyck wtgegeven | t'Amsterdam, | gedruckt by Iacob Theuniss Loots-man, | Boeck verkooper, en Graedt boogh Maker | op't water inde Loots-man. |

Size, 17 x 21½ inches.

Black; no boundaries.

[*In* The sea-atlas or the water-world, shewing all the sea-coasts, etc., in **Amsterdam**, printed by Jacob and Casparus Loots-man **1671.**]

Copy seen, L.

Iacobsz (Anthony). **West-Indische | paskaert;** | waer in de graden der breedde over weder- | zyden vande middellyn wassende soo vergrooten, | dat die geproportioneert syn tegen hunne | nevensta-ende graden der lengde. | Vertonende (behalven Europaes zuydlic-kste) | alle de Zee-kusten van Africa en Ame | rica, begrepen in't Octroy bij de E. E. H. M. H. | Staten Generael der vereenichde Ne- | derlanden verleent aende gene- | rale West-Indische Compagnie. | Mitsgaders die van Peru en Chili, | inde groote Zuyd-Zee. | Besch-reven door A. Iacobsz. | **t'Amstelredam** | by | Anthony Iacobsz | op't Water inde | lootsman. | En Ambsterdam | chez | Anthoine Jacques | sur l'eau au | Matelot. |

Size, 28¼ x 36 inches.

Illuminated; no boundaries.

Copy seen in L. contains the following note: "Printed on vellum. Date about **1621**. The first published map of the Dutch West India Company."

NOTE.—*The name Guaiana is between R.d. Essekebe & R.de las Amazones; Nova Andalucia extends from Essekebe westward; Paria is north of N. Andalusia.*

Im Thurn (Everard Ferdinand). Reduction of the | Map of | **British Guinia** | compiled from the surveys | executed under | Her Majesty's Commission | from 1841 to 1844. | And under the direction of | the Royal Geographical Society | from 1835 to 1839. | By Sir Robert H. Schomburgk, K. R. E., Ph D. | Revised and corrected to the present

time | by Cathcart Chalmers, Esq. crown surveyor of the colony. | and James Gay Sawkins Esq. Director of the Geological Survey of the | West Indies and British Guiana. | With additions by Charles B. Brown, Esq. | 1875 | W. J. Turner, R. G. S. Del. | W. & A. K. Johnston, **Edinburgh & London** | Pub^{d} for the Proceedings of the Royal Geographical Society **1880.** |

Size, 16½ x 11 inches.

Colored; engraved boundaries.

Scale, 36 miles to one inch.

[*In* Royal Geographical Society Proceedings. 8°, London, 1880, August, vol. 2, no. 8 (new monthly series), p. 528.]

Copies seen, L. C. and State Department.

NOTE.—*The boundary is that shown on the first edition of the great map of the colony.*

Im Thurn (Everard Ferdinand). Reduction of the | Map of | **British Guiana** | compiled from the surveys | executed under | Her Majesty's Commission &c | **London,** Kegan, Paul, Trench, & Co | Edwd Weller, litho. |

Size, 16½ x 11 inches.

Black; engraved boundaries.

Scale, 36 miles to one inch.

[*In* Im Thurn (E. F.) Among the indians of Guiana, etc. 8°, London, **1883,** at end.]

Copy seen, L. C.

NOTE.—*Reduced copy of the great map of the colony showing boundary as given on first edition.*

Im Thurn (Everard Ferdinand). **British Guiana** | showing **distribution of tribes** | F. S. Weller. |

Size, 7¾ x 5 inches.

Black; engraved boundaries.

Scale, 1:4250800.

[*In* Royal Geographical Society Proceedings. 8°, **London, 1892,** October, vol. xiv, no. 10 (new monthly series), p. 682.]

Copies seen, L. C. and G. S.

NOTE.—*Shows also the gold mining districts. Boundary is that shown on second edition of the great map of the colony.*

Im Thurn (Everard Ferdinand). **British Guiana | North-West District** | F. S. Weller |

Size, 5 x 7¾ inches.

Black; engraved boundaries.

Scale, 1:1675000.

[*In* Royal Geographical Society Proceedings. 8°, **London, 1892, October, vol.** xiv, no. 10 (new monthly series), p. 672.]

Copy seen, G. S.

NOTE.—*Shows author's route and the gold mining districts. The boundary of the colony, so far as shown, is that given on the second edition of the great map of the colony.*

Im Thurn (Everard Ferdinand). Part of British Guiana | **showing the Route** Explored | **by** | Mr Everard **im Thurn** | **to Mt Roraima** | **1885.** |

Also on same plate another map entitled:

Roraima and Kukenam M^ts^ | and the surrounding country. | Surveyed by Mr H. J. Perkins | Under the Direction of Mr Everard im Thurn | 1885. | Pub^d^ for the Proceedings of the Royal Geographical Society, 1885. | W. & A. K. Johnston, Edinburgh & **London.** |

Size, 8¼ x 15¼ inches.

Black; engraved boundary.

[*In* Royal Geographical Society Proceedings. 8°, London, 1885, August, vol. 7, no. 8, p. 560.]

Copies seen, L. C. and G. S.

Jaillot (Charles Hubert Alexis). **Amerique Meridionale** | **divisée** en ses principales Parties | ou sont distingués les vns des autres | **Les** Estats | suivant qu'ils appartiennent presentement aux | **François,** Castillans, Portugais, Hollandois, &c. | Tirée de toutes **les Relations** qui ont paru jusques a present: | Par le Sr Sanson, Geographe **Ordinaire** du Roy. | Presentée | a Monseigneur le Dauphin | **par son tres-humble** tres-obeissant et tres-fidele seruiteur | Hubert **Jaillot.** | **A Paris,** chez H. Iaillot, joignant les grands Augustins, **aux deux** Globes. | Auec Priuilege pour Vingt ans. **1674.** |

Outside the neat line are these words:

L'Amerique Meridionale divisée en ses Principales **Parties sçavoir** La Terre Ferme, Le Perou, Le Chili, Le Bresil, Le Paraguay, La Terre et Les Isles Magellaniques; | ou sont distingués les uns des autres Les Estats comme ils sont presentement possedés par **Les Francois,** Castillans, Portugais, Hollandois, &c. Dressée sur toutes **les Relations** qui ont paru jusque a present. Par le Sr Sanson, **Geographe** ordinaire du Roy. 1674. |

Size, 23 x 34¾ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., x, 4.

NOTE.—*Shows the Sanson line.*

Jaillot (Charles Hubert Alexis). **Amerique Meridionale** | divisée en ses Principales Parties | ou sont distingués les vns des autres | Les Estats | suivant qu'ils appartieñent presentement, aux | François, Castillans, Portugais, Hollandois, &c. | Tirée de toutes les Relations, qui ont paru jusques a present | Par le Sr Sanson, Geographe ordinaire du Roy. | Dedié au Roy | par son tres-humble, tres-obeissant, tres-fidele Sujet et Seruiteur, | Hubert Iaillot. | Cordier, sculpsit. |
Chez H. Iaillot joignant les Grands Augustins, aux deux Globes. | Auec priuilege du Roy, pour Vingt Ans **16[95]**.

Size, 18 x 25¼ inches.
Black; engraved boundaries, hand colored.
[*In* Jaillot (C. H. A.) Atlas François. fol. **Paris, 1695**, no. 13.]
Copy seen, L. C.
NOTE.—*Shows the Sanson line.*

Jaillot (Charles Hubert Alexis). **Amerique Meridionale** | divisée en ses Principales Parties | ou sont distingués les vns des autres | Les Estats | suivant qu'ils appartieñent presentement, aux | François, Castillans, Portugais, Hollandois, &c. | Tirée de toutes les Relations, qui ont paru jusques a present | Par le Sr Sanson, Geographe ordinaire du Roy. | Dedié au Roy | par son tres-humble, tres-obeissant, tres-fidele Sujet et Seruiteur, | Hubert Iaillot. | Cordier sculpsit. | [**Paris.**]
Chez H. Iaillot joignant les Grands Augustins, aux deux Globes. | Auec priuilege du Roy, pour Vingt Ans. **1719.**

Size, 18 x 25¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, H. C. (marked $\frac{15}{25}$).
NOTE.—*Shows the Sanson line.*

Jaillot (Charles Hubert Alexis). **L'Amerique** | **Meridionale** | Divisée en Ses Principales | Parties. Presenté à Monseigneur | le Duc de Bourgogne | Par son Tres humble et tres Obeissant Serviteur H. Iaillot. |

Outside the neat line are these words:

America Meridionalis in suas Præcipuas Partes Accuratè divisa, ad Usum Serenissimi Burgundiæ ducis. [**Paris.**]

Size, 19 x 23¾ inches.
Black; engraved boundaries, hand colored.
No date [**? 1720**].
Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 70).
NOTE.—*Shows the Sanson line.*

Jaillot (C. H. A.) *See* also **Ottens** (R. and J.)

Jansson (Jan). **America** | noviter delineata. | Amstelodami, excudit Ioannes Ianssonius. |

Size, 15 x 19½ inches.
Black; engraved boundary.
[*In* Jansson (J.) Nuevo atlas, etc. fol. **Amsterdam, 1653**, vol. 2, fol. A.]
Copy seen, L. C.

NOTE.—*Guiana as an inclosed interior region; Caribana lies to the eastward.*

Jansson (Jan). **Americæ** | **pars** | **Meridionalis** | Amtselodami | Sumptibus Ioannis Ianssony. |

Size, 18 x 21½ inches.
Black; no boundaries.
[*In* Jansson (J.) Nuevo atlas, etc. fol. **Amsterdam, 1653**, vol. 2, fol. M.]
Copy seen, L. C.

Jansson (Jan). **Gviana** | **siue** | **Amazonvm** | **regio.** | Amstelodami, | Ioannes Ianssonius | excudit. |

Size, 14½ x 19 inches.
Black; no colors, no boundaries.
[*In* Jansson (J.) Nuevo atlas, etc. fol. **Amsterdam, 1653**, vol. 2, fol. Q.]
Copy seen, L. C.; also a copy in H. C. (marked $\frac{4620}{6}$).

Jansson (Jan). **Venezuela** | cum parte Australi | Novæ Andalusiæ. | Amstelodami, | Ioannes Ianssonius Excudit. | Sculpserunt E. S. Hamers-veldt et S. Rogeri. |

Size, 14½ x 19 inches.
Black; no boundaries.
[*In* Jansson (J.) Nuevo atlas, etc. fol. **Amsterdam, 1653**, vol. 2, fol. P.]
Copy seen, L. C.

NOTE.—*A copy of this map by Valk and Schenk in Harvard College (marked* $\frac{4615}{8}$*) has an engraved boundary bent around the title.*

Janvier (Jean). **L'Amérique** divisée en ses principaux etats assujettie aux observations astronomiques par le S^r^. Janvier geographe. **A Venise** chez François Santini rue S^te^. Justine pres la dite eglise. [**1776.**]

Size, — x — inches.
Black; engraved boundary, hand colored.
Copy seen in collection of Rev. J. H. W. Stuckenberg, 17 Arlington St., Cambridge, Mass.; also in N. Y. World, January 1, 1896.

NOTE.—*Shows the Sanson line.*

Janvier (Jean). **L'Amérique Méridionale** Divisée en ses principaux états par le Sr. Janvier, **Paris**, *Lattré*, **1762.**

[*In Atlas* moderno ou collection des cartes. fol. *Paris, Lattré*, 1762.]
Astor Lib., N. Y.; *Not seen.*

Jefferys (Thomas). Chart of the **Atlantic Ocean**, with the British, French, & Spanish | Settlements in North America, and the West Indies; | as also on the Coast of Africa. | By Thos Jefferys Geographer to his Majesty. | Publishd | 'd according to Act of Parliament and Printed for Robert Sayer in Fleet Street and Thomas Jefferys in the Strand. |

Size, 18⅝ x 24¼ inches.
Black; engraved boundaries, hand colored.
[*In* Jefferys (Thomas). A general topography of North America and the West Indies. fol. **London**, for R. Sayer and T. Jefferys, **1768**, pl. iv.]
Copy seen, L. C.

NOTE.—*Shows the D'Anville line.*

Jefferys (Thomas). The **Caribbee Islands and Guayana.** Drawn by L. Delarochette | Engraved by Thomas Jefferys, Geographer to His Royal Highness the Prince of Wales. |

Size, 27 x 24 inches.
Black; engraved boundaries, hand colored.
[*In* Jefferys (T.) A General Topography of North America and the West Indies. fol. **London**, for R. Sayer and T. Jefferys, **1768**, no. 77, (ms. no. 91).]
Copy seen, L. C.

NOTE.—*Has "Amacura or Cape Breme according to the Dutch Pilots" with the D'Anville line, west of which is "Missions of the Capuchins from Catalonia."*

Jefferys (Thomas). The **Caribbee Islands and Guayana** drawn by L. Delarochette. | Engraved by Thomas Jefferys, geographer to His Royal Highness the Prince of Wales. | **London**, publish'd as the act directs Feb^{ry}. 1st, **1776**, by W^{m}. Faden, corner of St. Martins lane, Charing Cross.

Size, 28 x 23¾ inches.
Black; engraved boundary, hand colored.
[*In* Faden (W.) The North American atlas, etc. fol. London, for Wm. Faden, successor to the late Thos. Jefferys, 1777. no. 40.]
Copy seen, L.

NOTE.—*Later edition of above; shows same.*

Jefferys (Thomas). The **Coast of Caracas, Cumana, Paria and** the **Mouths of Rio Orinoco,** with the Islands of Trinidad, Margarita, Tobago, Granada, S^t^. Vincent, &ca. By Thos. Jefferys, Geographer to His Majesty. | **London.** Printed for Robt. Sayer, Map and Printseller, No. 53 Fleet Street, as the Act directs, 20th Feb^y^. | **1775.**

Size, 19 x 25 inches.
Black; engraved boundary.
[*In* Jefferys (T.) The West-India atlas, fol. London, 1783, pl. A I 17.]
Copy seen, L. C. Also in 1775 ed. of the W. I. atlas in L., but not in the edition of that date in H. C.

NOTE.—*This is part of a large map of the West Indies of which an index has been published entitled: An Index Map to the following Sixteen Sheets, etc. A part of this chart is reproduced in the accompanping atlas, pl. 41.*

Jefferys (Thomas). The **coast of Caracas Cumana Paria and** the **Mouths of Rio Orinoco** with the Islands of Trinidad Margarita Tabago Grenada and S^t^. Vincent By Thos. Jefferys Geographer to his Majesty | **London** Printed for Robt. Sayer Map & Printseller N°. 53 Fleet Street, as the Act directs, Novr. 1st **1792.** |

Size, 19 x 25½ inches.
Black; engraved boundary.
[*In* Jefferys (T.) The West-India atlas. fol. London. 1794. pl. A I 17.]
Copy seen, L. C.

NOTE.—*The engraved boundary is along the Barima. A part of this chart is reproduced in the accompanying atlas, pl. 44.*

Jefferys (Thomas). A new **Chart** | **of the Coast of Guayana** | From Rio Orinoco to River Berbice, | Containing the Dutch Colonies of | Poumaron, | Issequibo and Demerary, | and Berbice. | **London,** Printed for R. Sayer and J. Bennett, No. 53, Fleet Street, | as the Act directs, 1 June **1781.** |

Size, 27 x 19½ inches.
Black; no boundaries.
[*In* Jefferys (T.) The West-India atlas, fol. London, 1783, pl. XVII.]
Copies seen, L. C. and H. C. (marked [illegible]).

NOTE.—*Has a note near the mouth of the Orinoco "R. Amacura which Divides the Dutch from the Spanish settlements."*

Jefferys (Thomas). A new chart | of the **Coast of Guayana** | From Rio Orinoco to River Berbice, | Containing the Dutch Colonies of | Poumaron | Issequibo and Demerary, | and Berbice. | **London,** Printed for R. Sayer Map & Chart seller, N°. 53 Fleet Street, | as the Act directs, 1 June **1787.** |

Size, 27 x 19¼ inches.

Black; no boundary.
[*In* Jefferys (T.) The West-India atlas, etc. fol. London, 1794, pl. 25.]
Copy seen, L. C.

NOTE.—*The Amacura, made to debouche at "Cape Breme," bears this legend: "R. Amacura which Divides the Dutch from the Spanish Settlements."*

Jefferys (Thomas). A New Chart | of the **Coast of Guayana**, | From Rio Orinoco to River Berbice, | Containing the Dutch Colonies of | Poumaron, | Issequibo and Demerary, | and Berbice. | **London**, Publish'd by Laurie & Whittle, No. 53 Fleet Street, | as the Act directs, 19th Novr. **1795**.

Size, 26¾ x 19¼ inches.
Black; no boundary line.
[*In* Jefferys (T.) The West-India atlas; fol. London, 1818, pl. 33.]
Copy seen, L. C.

NOTE.—*Amacura river is east of the Barima. At the Barima mouth are the words: "Barima River which Divides the Dutch and Spanish Lands." A part of this chart is reproduced in the accompanying atlas, pl. 45.*

Jefferys (Thomas). Chart of **South America**, comprehending the West Indies, with the Adjacent Islands, in the Southern Ocean, and South Sea. | Publish'd according to Act of Parliament and Printed for Robert Sayer in Fleet Street and Thomas Jefferys in the Strand. |

Size 21¼ x 24 inches.
Black; engraved boundaries, hand colored.
[*In* Jefferys (Thomas). A General Topography of North America and the West Indies. fol. **London**, for R. Sayer, and T. Jefferys, **1768**, pl. vi.]
Copy seen, L. C.

NOTE.—*This is sheet vi of "A chart of North and South America, including the Atlantic." Shows the D'Anville line.*

Jefferys (Thomas). A new Chart of the **West Indies**, drawn from the best Spanish Maps, and regulated by Astronomical Observations. | To front the title. |

Size 7 x 11½ inches.
Black; engraved boundaries; hand colored.
[*In* Jefferys (T.) A description of the Spanish islands and settlements on the coast of West Indies. 4°, **London, 1762**. Also *in* Jeffreys (T.). A general Topography of North America and the West Indies, fol. **London, 1768**, pl. 45. Manuscript No. 72.]
Copies seen, L. C.

NOTE.—*On this map are shown by colors "The settlements of the European nations * * * as they stood in 1755, with the islands taken after that time from the French and Spaniards by the British forces."*

Jefferys (Thomas). An | Index Map | to the following | Sixteen Sheets, | being | A Compleat Chart | of the | **West Indies**, | with | Letters in the Margin, to direct the placing the different Sheets | in their proper Places. | **London**, Printed for Robt. Sayer, Map & Print-seller, Nº. 53 in Fleet Street, as the Act directs 20th Febr. **1775.** |

Size, 15¼ x 25 inches.
Black; engraved boundary.
[*In* Jefferys (T.) The West-India atlas, fol. London, 1783, pl. 1.]
Copy seen, L. C.; also in the 1775 edition in L.

Journ. Sc. and Arts. *See* [**Anonymous.**] Missions of the Caroni.

Kelly (Christopher.) **South America.** | Published by Thomas Kelly, Nº. 53, Paternoster Row, **London.** | Engraved by A. Findlay. |

Size, 9¾ x 7¼ inches.
Black; engraved boundary.
[In Kelly (C.) A New and Complete System of Universal Geography. 4°, London, **1819**, vol. i, p. 705.]
Copy seen, L. C.

NOTE.—*The boundary is modeled after D'Anville, 1748.*

Keulen (Gerard van.) Nieuwe | wassende graade zee kaart | over de | **Spaanse Zee** | **vant kanaal tot 't eyland Cuba** | in West-india. | Nouvelle carte marine reduite de la | Mer. d. Espagne | du canal jusqua Terra Neuf en | I. de Cuba dans l'Amerque. | The new sea map of the | Spanish Zee | betwext t'chanell | and the I. Cuba. | tot **Amsterdam** by | Gerard van Keulen | boek zeekaert verkoper en graedboog maker op de hoek van de Nieuwenbrug steeg | inde gekroonde Lootsman met previlegie voor 15 jaere. | L v. Anse schulp. |**No date.**|

Size, 23¼ x 39 inches.
Colored sailing chart.
Copy seen, L.

NOTE.—*Hand colored boundaries and the places of the names Nova Andalucia and Guaiana disagree.*

Kiepert (Heinrich.) H. Kiepert's | Karte des nördlichen tropischen America A new map of **Tropical-America** | north of the equator | comprising | the West-Indies, Central-America, Mexico, | New Granada and Venezuela | composed with the help of all cartographic and

literary materials hitherto published | and | dedicated by permission | to | His Excellency Baron Alexander von Humboldt | by | H. Kiepert. | * * * **1858.** | Published by Dietrich Reimer, **Berlin.** |

Size, 38½ x 62½ inches; dissected, in portfolio.
Colored; engraved boundaries.
Copy seen, L. C.

Kitchin (Thomas). Map of the | **European Settlements** | **in** | **South** | **America.** | By Thos Kitchin Senr | Hydrographer to his Majesty. | Published by T. Cadell according to Act of Parliament May 1st **1783** | [**London.**]

Size 17¾ x 13½ inches.
Black; engraved boundaries.
[*In* Raynal (*l'abbé* G. T. F.) A philosophical and political history, etc., newly translated from the French by J. O. Justamond, with a new set of maps in 6 vols. 2d ed. 8°, London, 1798, volume 3, p. 1.]
Copy seen, L. C.

Kitchin (Thomas). Map | of the | **European Settlements** | **in** | **South America** | and on the Western Coast of | Africa | By Thos Kitchin | Hydrographer to his Majesty. | Vol. II. |

Size, 13 x 18 inches
Black; engraved boundaries.
[*In* Raynal (*l'abbé* G. T. F.) A philosophical and political history, etc. 3d ed. 12°. **Dublin, 1779**, vol. 2, p. 1.]
Not found in 2nd ed. 1798.
Copy seen, L. C.

Kitchin (Thomas). Map of **South America.** For the Rev. Dr Robertson's History of America. By Thos. Kitchin Senr., Hydrographer to His Majesty. Published according to Act of Parliament Septr 29th, **1777**, by W. Strahan and T. Cadell in the Strand, [**London.**]

Size, 13 x 18 inches.
Black; engraved boundaries.
Copy seen, H. C. (marked $^{15}\frac{7}{11}^{6}$.)
NOTE.—*Boundary line copied from D'Anville.*

Kitchin (Thomas). Landkarte von **Süd-America** zu Robertson's Geschichte von America von Th. Kitchin.

Copy seen, H. C. (marked $^{15}\frac{7}{11}^{6}$.)

Kitchin (Thomas). **South America** | agreeable to the | most approved | Maps and Charts, | by Mr Kitchen. Engraved for Millar's New Complete & Universal System of Geography.

Size, 13½ x 15 inches.
Black; engraved boundary.
[*In* Millar (George Henry). The new and universal system of geography: etc. fol. **London, 1782**, vol. 2, p. 779.]
Copy seen, L. C.

NOTE.—*Guiana is enclosed in the interior and separated, by an engraved line, from the surrounding settled parts.*

Kitchin (Thomas). **South** | **America** | Drawn from the | best Authorities By T. Kitchin. [**London**; **no date.**]

Size, 7½ x 8¾ inches.
Black; engraved boundaries.
Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 122).

NOTE.—*Boundary resembles the D'Anville line of 1748.*

Kitchin (Thomas). **South America**, drawn from the latest and best authorities. T. Kitchin del. Engraved by G. Terry. Engraved for Jno. Harrison, No. 115 Newgate Street [**London**], Octr. 1st, **1787**.

Size, 13 x 15½ inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C.

Kitchin (Thomas). **South America** | with its several divisions, | according to the Possessions | of the European powers; | by Thomas Kitchin | Hydrographer to His Majesty | **London.** | Published by Laurie & Whittle, 53, Fleet Street, | as the Act Directs 12th May, **1794.** |

Size, 17 x 20¾ inches.
Colored; engraved and colored boundaries.
[*In* Laurie (R) and Whittle (J.) A new and elegant imperial sheet atlas, etc. fol. London, 18 8, pl. 56.]
Copy seen, Francis V. Balch, Boston, Mass.

NOTE.—*Guiana is shown as an interior region surrounded by an engraved line and separated from the coast.*

La Croix (A. Pher, de). Guiana, verdeelt in **Guiana en Caribana**, door N. Sanson d'Abbeville geographe ord^re^ du Roy.

Size, 7¾ x 10¾ inches.
Black; engraved boundary, double lined; copy of Sanson.
[*In* La Croix (A. Pher. de) Algemeene weereld-beschryving, etc. 4°, Amsterdam, 1705. vol. 3, p. 385.]
Copy seen, L. C.

La Croix (A. Pher. de). 'T vaste landt van't **Niew Koningryk Granada** enz door N. Sanson d'Abbeville, geogr. ord^re du Roy. A. d'Winter sc.

Size, 5½ x 11½ inches.

Black; engraved boundary, double lined; copy of Sanson.

[*In* La Croix (A. P. de) Algemeene weereld-beschryving, etc. 4°, **Amsterdam, 1705.** vol. 3, p. 384.]

Copy seen, L. C.

La Croix (A. Pher. de). **Noorder America.** Door N. Sanson d'Abbeville, geographe du Roy. A. d'Winter sculp.

Size, 7¾ x 11 inches.

Black; engraved boundary along S. bank of the Orinoco.

[*In* La Croix (A. P. de) Algemeene weereld-beschryving, etc., door A. Pher de la Croix. In de hoogduitsche tael overgebraght door H. Dicelius, etc., in 3 vols. 4°. **Amsterdam, 1705,** vol. 3, p. 328.]

Copy seen, L. C.

La Croix (A. Pher. de). **Zuider America** door N. Sanson d'Abbeville geographe ordinai. du Roy.

Size, 7¾ x 11 inches.

Black; engraved boundaries; copy of Sanson.

[*In* La Croix (A. Pher. de) Algemeene weereld-beschryving, etc., in 3 vols. 4°, **Amsterdam, 1705,** vol. 3, p. 382.]

Copy seen, L. C.

Laet (Jan de). **Gvaiana** | siue | Provinciæ intra | rio de las Amazonas | atque | rio de Yviapari | siue | Orinoque. |

Size, 11 x 14 inches.

Black; no boundaries.

[*In* Laet (J. de) Beschrijvinghe van West-Indien door Ioannes de Laet. 2d ed. fol. **Leyden, 1630,** p. 552.]

Copies seen, L. C. and H. C.; also latin ed. of 1633, L. C. and H. C.; also French ed. of 1640, L. C. and H. C.

NOTE.—*Same map in each edition, as also in the first edition of 1625. This map is reproduced in accompanying atlas, pl. 24.*

Lafreri. *See* **Forlani** (P.)

Langren (Arnoldus Florentius à). **Delineatio** omnium orarum totius | **Australis partis Americæ** dictae Peruvi- | anæ à R. de la Plata, Brasiliam, Pariam, & Cas- | tellam auream, unà cum omnibus Insulis Antillas | dictis, Hispaniolam, item & Cubam comprehendentis, | usq, àd promont: floridæ, vulgò, cobo de la florida: Item | Isthmi

inter Panamam & Nombre de dios, Terræ Peru | auriferæ, cum ejus metropoli Cusco, & coñodissimo | portu Limæ: Orarum etiam Chilæ, freti inter terram Pa- | tagonum, & terram del fuego, vulgò Estrecho de Fernan- | do Magellannes. Et omnium portuum, Insularum, scopu- | lorum, pulvinorum, & vadorum, tractusq. vento- | rum, ex optimis Lusitanicis cartis hydro- | graphicis delineata atq. emendata. | Arnoldus Florentius à Langren, | Author et scalptor.

Size, 15¼ x 22¼ inches.
Black; some engraved boundaries.
[*In* Linschoten (Jan Huyghen van). Descriptio totius Gvineæ, etc. fol. **Hagæ Comitis, 1599**, p. 37.]
Copy seen, L. C.

Lapie (P.) **Amérique Méridionale** par P. **Lapie. 1809.** Écrit par Giraldon.

[*In* Malte Brun (Conrad). Précis de la géographie universelle. fol. **Paris.** *F. Buisson.* 1810. No. 70.]
Boundary from mouth of Orinoco.
Astor Lib., N. Y. *Not seen.*

Lapie (P.) **Amérique Méridionale** par P. Lapie, **1809.** Écrit par Giraldon.

[*In* Malte-Brun (C.) Collection de Cartes Géographiques par **Malte Brun,** dressées par Lapie et Poirson, **Paris, 1810.**]
Copy seen, tracing in V. C. no. 43.
NOTE.—*Shows the Cruz Cano line.*

Lapie (P.) **America Meridionale** di P. Lapie, **1811.**

[*In* Atlante Universale Portatile, &c. (anon.) **Napoli,** Presso il **Gabinetto** Litterario, **1813.**]
Copy seen, manuscript tracing in V. C. no. 65.
NOTE.—*Shows the Cruz Cano line.*

Lapie (P.) Carte Genérale | de | **l'Amérique Méridionale.** | Dressée par Mr Lapie, 1er Géographe du Roi, | et Mr Lapie fils Lieutenant Ingénieur Géographe | **Paris 1829.** | chez Eymery Fruger et Cie | Rue Mazarine N° 30. | La gravure dirigée et gravée par Lallemand. | Atlas Universel, 46 [*C?*]

Size, 21½ x 15½ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., x, 20.
NOTE.—*Shows the Cruz Cano line.*

Lapie (P.) Carte | du **Brésil**, | Dressée par M. Lapie, 1er Géographe du Roi | Et M. Lapie Fils Geog. de S. A. R. M. le Dauphin | **Paris 1829** | Chez Eymery Fruger et Cie, Rue Mazarine No 30. La Gravure dirigée et éxécutée par Lallemand. |

Size, 21½ x 15¾ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., x, 19.

NOTE.—*Shows the Cruz Cano line. This map is, doubtless, from "Atlas universel."*

Lapie (P.) Carte | de **Colombie** | **et des Guyanes** | Dressée par M. Lapie, 1er Géographe du Roi et | M. Lapie Lieutenant Ingénieur Géographe | **Paris 1828** | chez Eymery Fruger & Cie | Rue Mazarine No 30. La gravure dirigée par Lallemand. | Atlas universel | 47 E. |

Size, 15¾ x 21½ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., x, 16.

NOTE.—*Shows the Cruz Cano line.*

Lapie (P.) A map of the **West-Indies and** of the **Mexican-Gulph.** Carte des Indes Occidentales et du Golfe du Mexique. Dressée par Lapie, Capitaine-Ingenieur-Géographe. Publiée par P. A. F. Tardieu, graveur, editeur-proprietaire. A **Paris.** Gravé par P. A. F. Tardieu. Deposée à la bibliothèque impériale le 5 Septembre **1806.**

Size, 20 x 30 inches.
Engraved boundaries; hand colored.
Copy seen, H. C. (marked $\frac{4465}{18}$).

NOTE.—*Colored conformably to an accompanying legend to show possession of United States, France, Spain, England, Denmark, Holland, and Sweden. Carelessly done.*

Lapie (P.) **Zuid Amerika**, | Volgens de laatste ontdekkingen, | meerendeels gevolgd naar | Lapie. | Te | Haarlem, by | De Erven F. Bohn. | C. van Baarsel & Zoon del. & sculp. |

Size, 10 x 8 inches.
Colored; engraved boundaries, hand colored.

[*In* Nieuwe en Beknopte Verzameling der noodigste Landkaarten, ten gebruike Der Scholen, naar di nieuwste bepalingen en laatste ontdekkingen ontworpen; meerendeels volgens de atlassen van Lapie en Arrowsmith. Tweede, herziene Uitgaaf. Oblong fol. Te **Haarlem**, bij de erven François Bohn, **1835**, no. 18.]
Copy seen, V. C. no. 31.

NOTE.—*Shows the Cruz Cano line.*

Lapie (P.) *See* also **Malte Brun** (C.)

Lea (Philip) and **Overton** (I.) A New Mapp of | America Devided | According to the Best and latest Observations and Discoveries wherein | are discribed by thear Proper Names the seaverall Countries that | belonge to ŷ English which are wholly left out in all | French and Dutch maps viz | New Scotland, Long Iland, N. York, N. Jarsey, Mary Land, | Pensilvania, Carrolina, etc. by Philip Lea at ŷ Atlas | and Hercules in Cheapside and by I. Overton | at the White Horse without Newgat **London.** | Philip Lea excudit. | James Moxon Sculp. |

Size, 18¾ x 22 inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C. (being no. 2 in collection labeled *Maps of America*).
[No date. 1685?]

NOTE.—*Shows the Sanson line. Guiana is an interior and Caribana a coastwise region.*

Leig (Charles). *See* **Aa** (Pieter van der).

Le Sage (A., *comte de las Cases*). **Amérique** Historique, Physique et Politique en 1827.

Size, 21¼ x 27½ inches.
Colored; engraved boundaries.
[*In* Le Sage (A.). Atlas Historique * * * avec des augmentations et des annotations, par le Chevalier Marchal. fol. **Bruxelles, 1853, no. 36.**]
Copy seen, V. C. no. 32.

NOTE.—*Shows the Cruz Cano line.*

Le Sage (A., *comte de las Cases*). De **l'Amerique Moderne** en 1812. | De l'Imprimerie de P. Didot l'aîné. **1812.** |

Size, 17½ x 14 inches.
Colored; engraved boundaries.
[*In* Le Sage (A.). Atlas historique, etc. fol. **(Paris) 1814, pl. 33.**]
Copy seen, V. C. no. 20.

NOTE.—*Shows the Essequibo line.*

London Magazine. A Map of | the **Dutch Colonies** of | Surinam and Barbutius | and the French Colony of | Cayenne; | between the Orinoko and | Amazon Rivers, in | South America. | For the London Magazine. |

Size, 8¾ x 7½ inches.

Black; engraved boundary.

[*In* London (The) Magazane. 8°, For R. Baldwin, (**London**) **1763**, August, vol. 32, p. 404.]

Copy seen, L. C.

NOTE.—*Shows the D'Anville line with curve to westward.*

Lopez (Thomas). Mapa General | de la **America** | Per Lopez **1758.** |

Size, 4¼ x 6 inches.

Black; engraved boundaries.

[*In* Lopez (T.) Atlas geographico de la America Septentrional y Meridional. 18°. **Madrid**, 1758. p. 2.]

Copy seen, L. C.

NOTE.—*Shows a boundary resembling the Sanson line.*

Lopez (Thomas). Provincias de **Cumana, Paria**, la Isla de la **Trinidad y** el **Rio Orinoco. 1758.**

Size, 4¼ x 3¼ inches.

Black; engraved boundary.

[*In* Lopez (T.) Atlas geographico de la America Septentrional y Medridional, etc. 18°, **Madrid**, 1758, p. 72.]

Copy seen, L. C.

NOTE.—*Shows a boundary resembling D'Anville's.*

Lucena (José Paluzíe). **América Septentrional | y | América Meridional** | por | José Paluzíe Lucena | Ingeniero | **Barcelona** | Establecimiento editorial de Faustino Paluzíe | 421 Diputación 423 | **1895.** |

Size, 27¾ x 22¼ inches.

Colored; engraved boundaries.

Copy seen, V. C. no. 60.

NOTE.—*Shows the Essequibo boundary.*

McCulloch (J. R.) **Central America** | and the | West Indies. | from the latest and best Authorities. | Engraved by S. Hall, 18 Bury Str^{t} Bloomsb^{y}. | **London**, Published by Longman & Co Paternoster Row, April, **1832.** |

Size, 12¼ x 20¾ inches.

Black; engraved boundary.

[*In* McCulloch (J. R.). A dictionary, practical, theoretical and historical, of commerce, etc. 12°, London, 1832, p. 324.]

Copy seen, L. C.

NOTE.—*Numerous editions of this work. The boundary is from Barima to Kykoverall, thence along the Essequibo, etc.*

Malouet (V. P.) *See* **Poirson** (J. B.)

Malte-Brun (Conrad). **Colombia and Guiana.**

Size, 8 x 9¼ inches.
[*In* Malte-Brun (C.) A new general atlas. 4°, Philadelphia, 1837, no. 38.]
In L. C.; *not seen.*
NOTE.—*Bad copy of Cruz Cano line.*

Malte-Brun (C.) *See* also **Lapie** (P.)

Mannert (Conrad). Charte | von | **Süd America** | nach astronomischen Beobachtungen, den besten vorhandenen Charten, | und den Berichten der Missionarien ausgefertigt | von | Conrad Mannert | **Nürnberg** in der Kayserl. privil. Kunsthandlung | Adam Gottlieb Schneider u. Weigels **1803**. |

Size, 25½ x 19½ inches.
Colored; engraved boundary.
Copy seen, H. C. (marked $\frac{15}{2}$A°.)
NOTE.—*Boundary resembles the Cruz Cano line but extends farther to the west in its southern part. A part of this map is reproduced in the accompanying atlas, pl. 55.*

Marret (Paul). Carte | de la **Terre Ferme,** | **du Perou, du Bresil** | **et du Pays des Amazones,** | Dressée, sur les Descriptions de Herrera, | de Laet, et des PP. d'Acunna, et M. Rodriguez, | et sur plusieurs Relations et | Observations posterieures, | Par Guillaume **de l'Isle**, Geographe de | l'Academie Royale des Sciences. | A **Amsterdam** | Chez la Veuve de | Paul Marret, | dans le Beurs-straat | à la Renommée. **1716**. | B: Ruyter sculpt. |

Size, 18¾ x 25 inches.
Black; engraved boundary.
Copy seen at office of the Venezuelan Boundary Commission.

Martin (Robert Montgomery). Map | of the | **Colonial Possessions** | **of** | **Great Britain** | 1838. | Published by James Wyld, Geographer to the Queen Charing Cross East **London.** W. H. Allen & Co. 7 Leadenhall Str. **1839**. |

Size, 15¾ x 22½ inches.
Black; engraved boundary; possessions are hand colored.
[*In* Martin (R. M.). Statistics of the Colonies of the British Empire, &c., 8°, London, 1839, front.]
Copy seen, L. C.
NOTE.—*Shows the Essequibo boundary by the color; there is no engraved boundary on the West.*

Martin (Robert Montgomery). **Guayana** | Published by G. B. Whittaker & C°., Ave Maria Lane **London 1836.** | For Montgomery Martin's History of the British Colonies—Possessions in the West Indies | Drawn & Engraved by J. & C. Walker. |

Size, 4½ x 7 inches.

Black; engraved bounndaries; hand colored.

[*In* Martin (R. M.) History of the West Indies, etc., 16°, London, 1837, vol. 2, p. 1.]

Copy seen, Colonel Robert A. Howard, Washington, D. C.

Martin de Moussy (*dr.* V.) Carte | de | **l'Amérique du Sud** | divisée | en ses différents états | Par le Dr. V. Martin de Moussy. | **1867.** |

Size, 16¼ x 20 inches.

Black; engraved boundary.

[*In* Martin de Moussy (V.) Description géographique et statistique de la confédération Argentine. 2d ed. Atlas, fol. **Paris**, F. Didot, 1873. pl. 3.]

Copy seen, L. C.

NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Martyr (Peter). Map of **Spanish Main, West Indies**, etc. No title. **Hispali**, April, **1511.**

Size, 7½ x 11 inches.

Black; no boundaries.

[*In* Martyr (P.) P. Martyris angli mediolanensis opera legatio babylonica oceani decas poemata epigrammata. Cum priulegio. sm. fol. Hispali, 1511.]

Copy seen, L.; also a facsimile *in* Nordenskjöld (N. A. E.) Facsimile atlas fol. Stockholm, 1889, p. 67, fig. 38.

Martyr (Peter). **Novvs orbis.** Doctiss. et ornatiss. Rich. Hakluyte, F. G. S. ω potius quam tibi Orbem hunc nouum dicassem? cum tu assiduis eruditisq: libris tuis ipsum eundem in dies illustriorem reddas. Eum igitur vti tua humanitate dignum est accipe, teq: nos vicissim amabimus. **Paris.** Cas. Maij. **M. D. LXXXVII.**

Size of original, 6.4 x 8.0 inches; size of facsimilie, 6¼ x 7¾ inches.

Black; no boundaries.

[*In* Nordenskjöld (N. A. E.) Facsimile atlas, etc. fol. Stockholm, 1889. p. 132, fig. 82.]

Copy seen, G. S.

NOTE.—*This map is reproduced in the accompanying atlas, pl. 19.*

Maxwell (John). *See* **Senex** (John).

Melvill de Carnbee (*baron* P.) Carte générale des **possessions Néerlandaises aux Indes Occidentales**, par le Bon P. Melvill de Carnbee, **1846.** | Gravé par D. Heÿse, a la Haije. | Lith: de A. van der Gant, à Leijde. |

Size, 15 x 20½ inches.
Black; engraved boundary.
[*In* Le Moniteur des Indes-Orientales et Occidentales. 4°, Batavia, 1847.]
Copy seen, V. C. no. 50.

NOTE.—*The boundary ascends the Morooca to the Imataca mountains, then follows these nearly or quite to the savanna country, then turns south to the Cuyuni which it then follows to the Essequibo.*

Mentelle (Simon). *See* **Poirson** (J. B.)

Mercator (Gerhard). **America | Meridio- | nalis. |**

Size, 14 x 19 inches.
Black; engraved boundaries, hand colored.
[*In* Mercator (G.) Atlas sive cosmographicæ meditationes de fabrica mundi et fabricati figura. 10th ed. fol. sumptibus et typis æneis Henrici Hondij, Amstercdami, An. D. **1628**, pp. 706–7.]
Copy seen, L. C., and G. S. (in collection labeled *American Maps*, vol. ii, no. 155).

NOTE.—*Guiana is an enclosed interior region and Caribana lies to the eastward.*

Mercator (Gerhard). **America | Meridio | nalis. |**

Size, 14 x 19 inches.
Black; no colors.
[*In* Mercator (G.) Atlas sive cosmographicæ meditationes de fabrica mvndi et fabricati figvra. 10th ed. fol. **Amsterdam**, H. Hondius, **1630**, pp. 388–389.]
Copy seen, L. C.

NOTE.—*Guiana is in the interior, Caribana on the coast.*

Mercator (Gerhard). Large map of the **world. Duisburg, 1569.** No title. "Aeditum autem est opus hoc Duysburgi an. D. 1569 mense Augusto."

18 sheets, each about 15 x 17 inches.
[*In* Drei karten von Gerhard Mercator. * * * Facsimile-lichtdruck nach den originalen der stadtbibliothek zu Breslau * * * herausgegeben von der gesellschaft fiir erdkunde zu Berlin. portfolio Berlin, 1891.]
Copy seen, L.

NOTE.—*Closely resembles De Bry (part 3) which seems to have been made from this. Region north of equator is Caribana.*

Mercator (Michael). **America** | siue | IndiaNova, | ad magnæ Gerardi Merca | toris aui Vniversalis imi | tationem, in compendi | um redacta. | Per Michaelem Mercatorem | **Duysburgensem.** | [**?1596.**]

Size, 14½ x 18¼ inches.

Illuminated; some hand-painted boundaries.

Copy seen, G. S. (in collection labeled *American Maps*, vol. 1, no. 26).

[Also *in* Mercator (G.) Atlas, 10th ed. fol. Amsterdam, H. Hondius, 1628, pp. 70–71.] Illuminated; no boundaries.

Copy seen, L. C.

Mercator (Rumoldus). **Orbis terræ** compendiosa descriptio. | Quam ex Magna Vniuersali Gerardi Mercatoris Domino Richardo Gartho, Geographię ac cęterarum bonarum artium amatori ac fautori summo, in veteris amicitię ac familiaritatis memoriã Rumoldus Mercator fieri curabat A° **M.D.LXXXVII.** Duysburghi Cliuorum | Typis Aeneis |

Size, 11½ x 20½ inches.

Hand colored; no boundaries.

[*In* Mercator (G.) Atlas etc. 10th ed. fol. Amsterdam, H. Hondius, 1628, pp. 50–51.

Copy seen, L. C.

Michelena y Rojas (Francisco). Mapa general | de | todos los estados | de la | **America del Sur** | arreglado | para servir al texto de la obra | del Sõr F. M. R. | **1867.** |

Size, 24 x 20¾ inches.

Black; engraved boundaries, hand colored.

[*In* Michelena y Rojas (F.) Exploracion oficiâl por la primera vez desde el norte de la America del Sur, etc. 8°, Bruselas, **1867**, front.]

Copy seen, L. C. and P. Lee Phillips.

NOTE.—*Shows the Cruz Cano line.*

See also **Schomburgk** (R. H.)

Millar (George Henry). **A** | New & Complete | Mercator Chart | of the | **World.** | Engraved for Millar's New Complete & Universal System of Geography. |

Size, 7¾ x 12 inches.

Black; engraved boundary.

[*In* Millar (G. H.) The new and universal system of geography, etc. fol. **London, 1782**, vol. 1, p. 456.]

Copy seen, L. C.

NOTE.—*Boundary copied from D'Anville.*

See also **Kitchin** (T.)

Moithey (—). **Amérique Meridionale**, par M. Moithey, ing. geog. du Roi, et professeur de mathématiques de MM. les pages de S. A. S. Monseigneur le prince de Conty. Publiée en **1785**. [**Paris?**]

Size, 20 x 29 inches.
Black; engraved boundary.
Copy seen, H. C. (marked $^{4}/_{10}^{15}$).
NOTE.—*Boundary apparently copied from D'Anville.*

Moll (Herman). To the right honourable, | Charles, earl of Sunderland, | and baron Spencer of Wormleighton, one of her | Majesty's principal secretaries of state, &c. | this map of | **South America**, | according to the newest and most exact observations is most humble | bly dedicated by your lordship's most humble servant | Herman Moll geographer. | B. Lens delin. G. Vertue sculp. Printed for H. Moll * * I. Bowles * * * T. Bowles * * and by P. Overton * * and by John King * * . [**London, no date (? 1720).**]

Size, 22¼ x 38 inches.
Copy seen in Bancroft collection, L.
NOTE.—*Some engraved boundaries, hand colored.*

Moll (Herman). A Map of | **Terra Firma** | **Guiana and the** | **Antilles Islands.** | **By H : Moll Geographer.** |

Size, 7 x 10 inches.
Black; some engraved boundaries.
[*In* Atlas geographus, etc. (*anon.*) 4° **Savoy**, E. Nutt, **1717**. v. 5, p. 396.]
Copy seen, L. C.

Moll (Herman). A map of the | **West-Indies** | or the Islands of America | in the North Sea; with ye adjacent | Countries; explaining what belongs to Spain, | England, France, Holland, &c. | also ye trade winds, and ye several Tracts | made by ye Galeons and Flota from place to place. | According to ye Newest and most Exact Observations | by Herman Moll geographer. | Printed for Tho. Bowles in S^t^. Pauls Church Yard | and Iohn Bowles at the Black Horse in Cornhill. | Sold by H. Moll | and by I. King at ye Globe in ye Poultrey near Stocks | Market. [**London, no date (? 1720).**]

Size, 23 x 40 inches.
Some engraved boundaries; hand colored.
[*In* Moll (H.). The world described, etc. fol. London; no date, map 10.]
Copy seen, L. C., whereon Guiana consists of the region S. and E. of the Orinoco and is bordered by green. The region west and north of the Orinoco is bordered by yellow; no explanations appear.
Copy in H. C. (marked $^{4}/_{5}^{5}$) has the Essequibo colored as a boundary.
Copy in Bancroft collection, L.

Moll (Herman). A chart of y^e^ **West-Indies** | or the islands of America in | the North Sea, &c. Being y^e^ present seat of war. | By Herman Moll geographer. Printed for Tho: Bowles in S^t^. Pauls church yard & John Bowles at the Black Horse in Cornhill. [**London, no date (?1720).**]

Size, 11 x 14 nches.
Black; engraved boundary.
Copy seen in Bancroft collection, L.
NOTE.—*Boundary line resembles Popple's and perhaps is the source of that line.*

Mollien (Gaspard Théodore). Map of the | **Republic of Colombia,** | Formed from the | Viceroyalty of New Grenada | and the Captainry General of Caraccas, | **1824** | **London**; Published by Charles Knight, Pall Mall East, Novr. 1824. Engraved by Sid^y^. Hall.

Size, 11¼ x 14¼ inches.
Black; engraved boundary.
[*In* Mollien (G. T.) Travels in the Republic of Colombia, 1822–23. Translated from the French. 12°, London, 1824, page 1.]
Copies seen, L. C. and H. C.
NOTE.—*Shows the Cruz Cano line.*

Monserratte (Juan). *See* **Venezuela** (Republic of).

Morse (Jedidiah). **South** | **America** | Engraved for Morses American Geography by A. Doolittle, N. H. Published by Thomas & Andrews, **Boston.**

Size, 6¼ x 8 inches.
Black; engraved boundaries.
[*In* Morse (J.) The American Universal Geography, etc. 2 vols. 12°, Boston, **1793**, vol. 1, p. 642.]
Copy seen, R. M. Towson, 1224 13th Street, Washington, D. C.

Morse (Jedidiah). **The** | **World** | from the best | Authorities | Engraved for Morses Geography by A. Doolittle N. Haven | Published by Thomas & Andrews |

Size, 7¾ x 14¼ inches.
Black; engraved boundaries.
[*In* Morse (J.) The American Universal Geography, etc., 2 vols., 12°, **Boston, 1793**, vol. 1, front.]
Copy seen, R. M. Towson, 1224 13th St., Washington, D. C.

Mortier (Pierre). **L'Amerique | Meridionale** | dressée | sur les Observations de | M^rs de l'Academie Royale des Sciences | & quelques autres, & sur les Memoires les Plus recens. | Par G. **Del'isle.** | A **Amsterdam** | chez Pierre Mortier. | Avec Privilege. [**No date.**]

Outside the neat line are these words:

America Meridionalis in suas præcipuas partes divisa ad usum serenissimi Burgnndiae ducis.

Size, 18¼ x 22¼ inches.
Colored; no boundary.
Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 180).

Mosquera (Thomas Cipriano de). Carta de la | **Republica | de | N. Granada** | Conforme á su últimа division política, | por T. C. de Mosquera. | F. Mayer, Lith. 93 William St. N. Y. |

Esta carta ha sido trabajada sobre la de Colombia publicada por el Coronel Codazzi en el atlas de Venezuela; &c.

Size, 16¼ x 23 inches.
Black; engraved boundaries.
[*In* Mosquera (T. C. de) Memoria sobre la Geografía, Física y Política de la Nueva Granada. 12°, **Nueva York, 1852**, at end.]
Copy seen, G. S. and L. C.

NOTE.—*Shows the Cruz Cano line.*

Another copy exactly like the preceding with the addition of these words:

| Entered according to Act of Congress in the year **1852** by Theodore Dwight in the Clerks Office of the District Court of the Southern District of New York |

[*In* Mosquera (T. C. de). Memoir on the physical and political geography of New Granada, etc., translated from the Spanish by Theodore Dwight. 8°, **New York, 1853**, at end.]
Copy seen, L. C.

Murray (Hugh). Map of **Brazil, Paraguay and Guiana.**

Size, 5½ x 4½ inches.
Black; engraved boundaries.
[*In* Murray (Hugh). An Encyclopædia of Geography. 12°. **London, 1834.** p. 1442.]
Copy seen, State Department.
Also in 2d ed. London 1844, pp. 1404 and 1446, in L. C.
Also in revised ed. by T. G. Bradford. 3 vols. 8°. Phil. 1852, vol. 3, pp. 222, 248, in L. C.

NOTE.—*All show the Cruz Cano line.*

Netscher (*general* P. M.) Kaart | van | **Essequebo, Demerara en Berbice** | naar de kaarten van | William Hilhouse 1825, | Maj. Bouchenröder 1798 & 1802 en anderen. | Samengesteld door | P. M. Netscher | **1887.** |

Steendr. van P. W. M. Trap, **Leiden.** | Behoort bij de Geschiedenis van Essequebo, Demerary en Berbice, door P. M. Netscher.

Size, 15¼ x 25¼ inches.
Colored; no boundary.
[*In* Netscher (P. M.) Geschiedenis van de koloniën Essequebo, Demerary en Berbice, etc. 8°. **s'Gravenhage,** 1888, map 2, at end.]
Copies seen, L. C. and State Department.

Netscher (*general* P. M.) Schetskaart van het **grensgebied | tusschen Venezuela en Britisch Guiana.** |

Size, 8¾ x 5¼ inches.
Black; eight engraved boundaries.
[*In* Netscher (P. M.) Het geschil over de grensscheiding tusschen Venezuela en Britisch-Guiana. 8°, **1896.** (Overgedrukt uit de Tijdspiegel, 1896.)]
Copies seen, L. C. and State Department.

Netscher (*general* P. M.) Schetskaart van het **grensgebied | tusschen Venezuela en Britisch Guiana** |

Size, 8¾ x 5¼ inches.
Black; engraved boundaries.
[*In* Tijdspiegel (De). 8°, **'s-Gravenhage, 1896,** Maart, no. 3, p. 249.]
Copy seen, in office of Venezuela Boundary Commission.
NOTE.—*Sketch showing various boundary lines.*

Netscher (*general* P. M.) Overzichtskaart van | **Guiana** | naar de kaart van Stieler's Handatlas | en met raadpleging der kaarten van | Sir Robert Schomburgk, | samengesteld door | P. M. Netscher. | **1887.** | Steendr. P. W. M. Trap. **Leiden.** | Behoort bij de Geschiedenis van Essequebo, Demerary en Berbice, door P. M. Netscher. |

Size, 10¼ x 16¼ inches.
Colored; engraved boundaries.
[*In* Netscher (P. M.) Geschiedenis van de koloniën Essequebo, Demerary en Berbice, etc. 8°. **'s Gravenhage,** 1888, map 1, at end.]
Copy seen, State Department.

Niles (*hon.* John Milton). **Map | of | South America | To accompany the History of South America by | Hon. John M. Niles | 1838. | T. Twitchel Sc. |**

Size, 19¼ x 15 inches.
Colored; engraved boundaries.
[*In* Niles (J. M.) History of South America and Mexico, etc., 2 vols. 12°, Hartford, 1839, vol. ii, at end.]
Copy seen, L. C. and V. C. no. 59.

NOTE.—*Shows the Essequibo as a boundary.*

Nolin (J. B.) **L'Amerique | ou | le nouveau continent | dresseé sur les memoires les plus | nouveaux et sur les relations | les plus recentes, rectifiez sur les | dernieres observations. | Dediée et presentée | a Monseigneur Law, | Controlleur Geñal des Finances | par son tres humble et tres obiss^t | serviteur I. B. Nolin. | C. Cochin f. |**

A Paris chez l'auteur, quay | de l'horloge du palais, a l'enseig^ne | de la place des victoires. 1720. Jenviliers sculpsit.

Size, 17½ x 23½ inches.
Some engraved boundaries; hand colored.
Copy seen, L.

NOTE.—*Region north of equator is Terre Ferme divided into Terre Ferme and Guiane ou Dorade which lies on both banks of the Orinoco. Resembles First Delisle map of 1700.*

Ogilby (John). Novissima et accuratissima | Totius | **Americæ | Descriptio** | per | Johanem Ogiluium. | Cosmographum | Regium | F. Lamb sculp |

Size, 17½ x 21 inches.
Black; no boundaries.
[*In* Ogilby (John). America, etc. fol. **London, 1671**, p. 1.]
Copy seen, L. C.

NOTE.—*The name Guiana is wholly east of the Corentin river; the name Nova Andalusia extends across the Orinoco to the Corentin. Caribana is in the interior south of the equator.*

Ogilby (John). **Gviana | siue | Amazonvm | regio. |**

Size, 11 x 14 inches.
Black; no boundaries.
[*In* Ogilby (John). America, etc. fol. **London 1671**, p. 607.]
Copy seen, L. C.

NOTE.—*Apparently copied from Blaeuw.*

Ogilby (John). **Venezuela** | cum parte Australi | Novæ Andalusiæ. |

Size, 11 x 14 inches.
Black; no boundaries.
[*In* Ogilby (John). America, etc. fol. **London, 1671,** p. 624.]
Copy seen, L. C.

NOTE.—*Apparently copied from Bleauw.*

Orbigny (Alcide Dessalines d'). Carte générale | de | **l'Amerique du Sud** | et des | iles qui en dépendent. | Dressée par A. H. Dufour | sous la direction | de Mr Alcide d'Orbigny. | Gravée par Desbuissons | Ecrite par Bénard. |

Size, 12½ x 19½ inches.
Black; engraved boundary.
[*In* **Orbigny** (A. D. d') Voyage pittoresque dans les deux Amériques, etc. 4°. **Paris, 1841,** at end.]
Copy seen, L. C.

NOTE.—*Boundary runs up the Morooca river to its source, thence south to the Cuyuni and then down the Cuyuni to the Essequibo, etc.*

Orbigny (Alcide Dessalines d'). Carte de | **l'Amérique Meridionale** | dressée par Alcide d'Orbigny. | d'aprés ses itinéraires sur les parties | qu'il a parcourues | servant a l'intelligence | de son voyage | et de ses observations | sur l'homme Americain | **1838**. | Gravé sur pierre par L. Bouffard, 7 rue de Bagneux, Paris. | Imp. chez Kaeppelin, 15 Quai Voltaire. |

Size, 24 x 17 inches.
Engraved boundary; hand colored.
[*In* Orbigny (Alcide D. d') Voyage dans l'Amerique meridionale * * 1826–33. 4°, **Paris, 1846,** atlas de la partié historique.]
Copies seen, L. C. and H. C.

NOTE.—*The boundary starts at a point about midway between the Pomeroon and Orinoco mouths and crosses the Cuyuni in mid course.*

Orinoco Company. Property of the | Orinoco Company | Land Grant | conceded | to | C. C. Fitzgerald, C. M. E. | by the Supreme Government of the | Republic of Venezuela | Sept. 22, 1883, | and | Reaffirmed June 18, 1895. | F. G. Lockwood, 61 Pine St., N. Y. [**New York, 1896.**]

Size, 8¼ x 11 inches.
Colored; engraved boundaries.
Copy seen, State Department.

NOTE.—*Shows the Cruz Cano line.*

Ortelius (Abraham). **Americae** sive | novi orbis, no | va descriptio. | Cum Priuilegio. |

Size, 14½ x 20 inches.

Illuminated; hand colored boundaries with engraved boundary about Brazil only.

[*In* Ortelius (A.) Theatrvm oder Schawplatz des erdbodems, etc. fol. **Antwerp, 1572.**]

Copy seen, L. C.

Another copy, uncolored, in same, fol. **Antwerp, 1570.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1571.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1575.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1585.**

Copy seen, L. C.

Ortelius (Abraham). **Americae** sive | novi orbis, no | va descriptio. | Cum Priuilegio decennali | Ab. Ortelius delineab. | et excudeb. **1587.** | [**Antwerp.**]

Size, 14½ x 20 inches.

Black; engraved boundary about Brazil only.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 36).

NOTE.—*Reproduced in the accompanying atlas, pl. 20.*

Ortelius (Abraham). **Typvs orbis terrarvm.** | Quid ei potest videri magnvm in rebvs hvmanis, cvi aeternitas | omnis, totivsqve mvndi nota sit magnitvdo. Cicero: | Cum priuilegio. | Franciscus Hogenbergus sculpsit. |

Size, 13¾ x 19¼ inches.

Illuminated; no boundaries.

[*In* Ortelius (A.) Theatrvm oder Schawplatz des erdbodems, warin die Landt tafell der gantzen weldt, mit sambt aine der selben kurtze erklarūg zu sehen ist. Durch Abrahamum Ortelium. fol. Antorff M. CCCCC. LXXII (**Antwerp 1572**)].

Copy seen, L. C.

Another copy, not colored, in same, fol. **Antwerp, 1570.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1571.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1575.**

Copy seen, L. C.

Another copy, colored, in same, fol. **Antwerp, 1585.**

Copy seen, L. C.

Ottens (Reinier and Josua). **L'Amerique Meridionale** divisée en ses principales parties. Presenté à Monseigneur le Duc de Bourgogne par son tres humble et tres obeissant serviteur H. Iaillot. A **Amsterdam**, R. and J. Ottens. [**No date.**]

Outside the border are these words:

America Meridionalis in suas præcipuas partes accuratè divisa, ad usum serenissimi Burgundiae ducis.

Size, 19 x 23¼ inches.

Black; engraved boundaries, some of them hand colored.

Copy seen, H. C. (marked $\frac{15}{13}^{75}$).

NOTE.—*This map is no. 86 of vol. 4 of Ottens (R. & J.) Atlas minor sive geographia, etc. Amsterdam, no date. Shows the Sanson line.*

Ottens (Reinier and Josua). Stoel des oorlogs in America waar in vertoont werden alle desself voornaamste eylande nieuwlycks uytgegeven door Reinier & Iosua Ottens.

Insulae Americanae nempe: Cuba, Hispaniola, Iamaica, P^to^ Rico, Lucania, Antillae vulgo Caribae, Barlo-et sotto vento, etc. **Amstelodanum** par Reinier & Iosua Ottens. Cum privilegio. [**No date.**]

Size, 19½ x 23 inches.

Black; engraved boundaries; hand colored.

Copies seen, H. C. (marked $\frac{11}{9}^{55}$) and L.

NOTE.—*Shows the Sanson line.*

Ottens (Reinier and Josua). **Venezvela** cum parte australi Novæ Andalvsiæ.

Size, 15 x 19 inches.

Engraved boundary; hand colored; copied from Sanson.

[*In* **Ottens** (R. & J.) Atlas minor, etc., in 4 volumes, **Amsterdam** (**no date**), vol. 4, no. 87.]

Copy seen, H. C.

See also **Blaeuw** (Wm.) and **Valk and Schenk**.

Overton (Henry). A new map of the **West-Indies**; or the islands of America in the North sea; with the adjacent parts, explaining what belongs to England, Holland, Spain, France &c. Also the several tracts made by the gallions and flota. By N. Visscher of Amsterdam. Is now done into English with many considerable improvements

according to the newest and best observations. Printed and sold by Hen: Overton at the White Hors without Newgate, **London.**

Size, 18 x 22 inches.
Black; engraved boundaries; hand colored.
Copy seen, H. C. (marked $\frac{4455}{13}$).

NOTE.—*Shows the Sanson line. An advertisement on the map is dated Jany*, 1740.

Pagan (*count of*). **Magni** | **Amazoni** | **flvvii** | in | America | Meridionali, | noua **delineatio** | **1655** | N. Bes. delin. cum priuil. Regis | Matheus fe. |

Size, 6 x 7½ inches.
Black; no boundaries.
[*In* Pagan (*count of*). Relation historiqve et geographiqve, etc. 12°, Paris, M.DC.LVI. p. 1.]
Copy seen, L. C.

Pagan (*count of*). **Magni** | **Amazoni** | **fluvii** | in | America | Meridionali, | noua **delineatio.** |

Size, 6 x 7½ inches.
Black; no boundaries.
[*In* Pagan (*count of*). An historical & geographical description of the great country and river of the Amazones in America. 18°, London, 1661. front.]
Copy seen, L. C.

NOTE.—*Guyana is the region between the Amazon and Orinoco, the ocean and interior mountains.*

Peacock (W.) A map of **North and South America.**

[*In* Compendious (A) geographical dictionary containing a concise description of the most remarkable places in the world, etc. 12°. **London.** Printed for W. Peacock, No. 18 Salisbury Square **1793.**]
Not seen. Title from Henry N Potter, M. D., 115 Cherry St., Burlington, Vt.

Pérez (M. C.) *See* **Venezuela** (Republic of).

Perkins (H. J.) Reduction | of a portion of the map of | **British Guiana** | compiled from the surveys | executed under | Her Majesty's Commission &c. | **shewing** the | **geological formation** | according to | C. Barrington Brown's Survey. | Waterlow & sons limited, London Wall, **London.** |

Size, 16¼ x 11 inches.
Colored; engraved and colored boundary.

Scale, about 36 miles to 1 inch.

[*In* Perkins (H. J.) Notes on British Guiana and its gold industry; *second edition*, revised and enlarged, 8°, London, (**1896**).]

Copy seen, J. J. Storrow.

NOTE.—*The boundaries shown on the 1st and 2d editions of the great map of the colony appear on this map, as also the note respecting boundaries, which appeared on the first and was omitted from the second edition.*

Perkins (H. J.) Chart of portion of **British Guiana** | shewing the present **Gold Mining Districts** of | **Cuyuni, Mazaruni, Potaro** & **Essequibo** Rivers & **Demerara** River. | Extracted from C. Brown's map of the colony dated 1875. | Waterlow & sons limited, London Wall, **London.** | Copied by L. S. Hohenkerk 18th December **1894** |

Size, 17¼ x 22½ inches.

Black; engraved and colored boundary.

[*In* Perkins (H. J.) Notes on British Guiana and its gold industry. fol. London, 1895, at end.]

Copy seen, at office of Venezuelan Boundary Commission.

NOTE.—*Gold fields shown by colors and engraved boundaries. Same map appears in 2d ed. of Perkins' notes, etc.*

Perkins (H. J.) Map of | **British Guiana** | **Shewing** the different | **gold centers** | **and Steamer Routes** to them. | Waterlow & sons limited, London Wall, London. | Copied by L. S. Hohenkerk 20th December, **1894.** |

Size, 16¼ x 11 inches.

Colored.

[*In* Perkins (H. J.) Notes on British Guiana and its gold industry. fol. **London**, 1895, at end.]

Copy seen, at office of Venezuela Boundary Commission.

NOTE.—*Gold fields and steamer routes shown by colors. Apparently copied from the 2d ed. of the great map of the colony.*

Perkins (H. J.) Chart | of | **North West District** | **British Guiana.** | Waterlow & sons, London Wall, London. |

Size, 17¾ x 21¼ inches.

Black.

[*In* Perkins (H. J.) Notes on British Guiana and its gold industry. fol. **London, 1895,** at end.]

Copy seen, in office of Venezuela Boundary Commission.

NOTE.—*Shows, by colors, steamer routes, gold fields, and boundary of Northwest District.*

Perkins (H. J.) Map | of the | **North Western District** | of | British Guiana. | Enlarged from plan of British Guiana dated 1875. | With additions. | by | L. S. Hohenkerk. | Georgetown, Demerara, | 14th March, **1896.** | Waterlow & sons limited, London Wall, **London.** |

Size, 30½ x 37 inches.
Black; engraved and colored boundary.
Scale, 4½ miles to 1 inch.
[*In* Perkins (H. J.) Notes on British Guiana and its gold industry; *second edition*, revised & enlarged, 8°, London (1896).]
Copy seen, J. J. Storrow.

NOTE.—*Large map showing trails, routes and gold fields. Boundary from 2d ed. of great map of the colony.*

Perkins (H. J.) Map | shewing | the existing **gold fields** | on the | **Demerara** River and **Essequibo** River and tributaries the **Potaro** & **Conawaruk** | Gold District N°. 2 | British Guiana. | By C. Wilgress Anderson, F. S. I., F. R. G. S. | Waterlow & sons limited, London Wall, **London.** |

Size, 7½ x 17 inches.
Black.
[*In* Perkins (H. J.) Notes on British Guiana and its gold industry. fol. London, **1895**, at end.]
Copy seen, at office of Venezuelan Boundary Commission.

NOTE.—*Trails and gold fields shown by colors.*

Perkins (H. J.) *See* also **Anderson** (C. W.) and **Im Thurn** (E. F.)

Pertinente beschrijvinge. *See* **Anonymous.**

Peterman (August). **British Guiana** | according to | Sir Robert Schomburgk | drawn by | Augustus Peterman, F. R. G. S. | Engraved by G. H. Swanston. | A. Fullarton & C°., London & **Edinburgh.**

Size, 9½ x 5½ inches.
Colored; engraved boundaries.
[*In* Fullarton (A.) & Co. A gazetteer of the world, etc., 8°, Edinburgh, London, and Dublin, (**1850.**) vol. 3, p. 732.]
Copy seen, L. C.

NOTE.—*A very attractive and pleasing map.*

Philip (George). Special map | of | **British Guiana** | illustrating the | Venezuela-Guiana boundary dispute | George Philip & son, **London** & Liverpool. | Copyright | (**1896**).

Size, 18¾ x 17 inches.
Colored; shows 4 boundary lines, gold fields, etc.
Copy seen at office of Venezuela Boundary Commission.

Picquet (C.) *See* **Brué** (A. H.)

Pinkerton (John). **Amérique** | **Méridionale.** |

Size, 9¾ x 8 inches.
Black; engraved boundaries, hand colored.
[*In* Pinkerton (J.) Géographie Moderne, etc ; traduite de l'anglais par C. A. Walckenaer. 4°, **Paris**, An XII, (**1804**), pl. 36.]
Copy seen, V. C. no. 21.

NOTE.—*Shows the Cruz Cano line.*

Pinkerton (John). The **Caracas** | Drawn under the direction of M^r^. Pinkerton by L. Hebert. | Neele sculp. 352 Strand. | Published by Dobson, Philad^a^. |

Size, 20 x 27½ inches.
Colored; engraved boundary, hand colored.
[*In* Pinkerton (J.) A Modern Atlas, etc. fol. **Philadelphia, 1818**, pl. 52.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line. The map is an obvious reprint of the London edition of 1815.*

Pinkerton (John). **South** | **America** | Drawn under the direction of M^r^. Pinkerton by L. Hebert. | Neele sculp^t^. 352 Strand. | **London**, published 4th June **1811** by Cadell & Davies, Strand, & Longman, Hurst, Rees, Orme & Brown, Pater Noster Row. |

Size, 27½ x 20 inches.
Colored; engraved boundary.
Copy seen, V. C., viii, 8.

NOTE.—*Shows the Cruz Cano line.*

Pinkerton (John). **South** | **America** | Drawn under the direction of M^r^. Pinkerton by L. Hebert. | Neele sculp^t^. 352 Strand. | Published by Dobson, Philad^a^. |

Size, 27½ x 19¾ inches.

Colored; engraved boundaries.
[*In* Pinkerton (J.) A Modern Atlas, etc. fol. **Philadelphia, 1818**, pl. 48.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line. Apparently a reprint of the London edition of 1815.*

Plancius (Peter.) **Orbis terrarvm** typvs de integro multis in locis emendatus auctore Petro Plancio, **1594.** | Ioannes à Duete cum iunior fecit. |

Size, 16 x 22¼ inches.
Black; engraved boundaries.
[*In* **Linschoten** (J. H.) Navigatio ac itinerarivm Iohannis Hvgonis Linscotani, etc. fol. **Hagæ-comitis**, 1599, p. 2; *also* in 3d ed. fol. Amsterdam, 1638, p. 1.]
Copies seen, L. C.

Poeppig (E.) *See* **Streit** (F. W.)

Poirson (J. B.) **Amérique | Meridionale,** | Par J. B. Poirson Ingénieur Géog^phe. | An XI (**1803**) | Gravée par Tardieu l'ainé, Rue de Sorbonne, N°. 385. | [**Paris.**]

Size, 17 x 14 inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., viii, 7.

NOTE.—*Shows the Cruz Cano line.*

Poirson (J. B.) **Carte | d'Amérique** | d'après | les matériaux les plus récents | Par J. B. Poirson Ingénieur Géographe | **1814** | **A Paris** chez Jean Rue S^t. Jean de Beauvais, No. 10. |

Size, 24½ x 33¾ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., no. 7.

NOTE.—*Shows the Cruz Cano line.*

Poirson (J. B.). Carte | de la | **Guiane Française | et Hollandaise.** | Dressée d'aprés les Cartes de N. Buache et de Simon Mentelle | Capitaine d'Infanterie, Garde du Dépôt des Cartes et Plans de la Colonie de Cayenne. | Par J. B. Poirson, Ingénieur Géographe, | en Messidor An 10 | **1802** | Gravé par Tardieu l'Ainé, Rue de Sorbonne N°. | 385. | [**Paris.**]

Size, 13¾ x 16¼ inches.
Black; engraved boundaries; hand colored.
Copy seen, V. C., x, 14.

NOTE.—*Engraved boundary is the Cruz Cano line; the painted boundary is the Essequibo.*

Poirson (J. B.) Carta | della | **Gujana Francese** | **ed Olandese.** | Formata giusta le Carte di N. Buache e di Simone Mentelle | Capitano, ed Archivista dei disegni della Piante della Colonia di Cajenna, | da G. B. Poirson. | **1821.** |

Size, 13¼ x 16 inches.

Black; engraved boundaries, some of them hand colored.

[*In* Rossi (Luigi). Nuovo Atlante vol. 2, fol. **Milano**, presso Batelli e Fanfani. (Title page missing), no. 43.]

Copy seen, V. C., no. 24.

NOTE.—*Shows the Cruz Cano line.*

Poirson (J. B.) Charte | von | dem **Hollaendischen und Franzoesischen** | **Guiana** | Nach einer handschriftlichen charte von dem Capt. | Simon **Mentelle** und nach der Charte von Buache, | gezeichnet von I. B. Poirson. | **Weimar,** | Im Verlage des Geographischen Instituts. | **1804.** |

Size, 12 x 16¼ inches.

Black; no boundary on the west of Dutch Guiana. The map limit on the west is Morooca creek.

[*In* Malouet (V. P.) Reisen nach dem Französischen Guiana und nach Surinam. 12°, Weimar, 1805, at end.]

Copy seen, L. C.

See also **Weimar Geographische Institut.**

Political Magazine. A Map of | **South America,** | Drawn from the Latest | and best Authorities. | **London.** Published as the Act directs, 31st July **1780.** by J. **Bew,** Pater Noster Row. | Jn°. Lodge, sculp. |

Size, 11 x 11½ inches.

Black; engraved boundary.

[*In* Political (The) Magazine. 8°, London, for J. Bew, 1780, July. vol. i, p. 463.]

Copy seen, L. C.

Popple (Henry). A Map | of the **British empire in** | **America** | with the French and Spanish | Settlements adjacent thereto. | by Henry Popple. | C. Lempriere inv. & del. | B. Baron sculp. | **London** Engrav'd by Willm Henry Toms & R. W. Seale, **1733.** |

Black; engraved boundaries.

In 21 sheets, fol., of which the first is a miniature of the great one in 20 sheets; size of large map, 93¾ x 91½ inches; size of small (index) sheet 19½ x 19¼ inches.

The small sheet has hand colored boundaries and outside the neat line the words: America Septentrionalis.

Copies seen, L. C. and H. C.

Two other copies of the small map are in L. C. (in collection labeled *American Maps*, 1606 to 1794, vol. 2, nos. 8 & 9.)

Outside the neat line on these copies are these words: "Sold at Stephen Austen's Book Seller in Newgate Street & by Thos Willdey at the great Toy Shop in St. Pauls Church Yard London. Price 2 shillings. W. H. Toms sculp."
Another copy in G. S. (in collection labeled *American Maps*, vol. ii, no. 151.)
NOTE.—*The small or index sheet is reproduced in the accompanying atlas, pl. 34; sheet 19 is similarly reproduced as pl. 35. They show the original Popple line.*

Popple (Henry). *See also* **Buache** (P.)

Postlethwayt (Malachy). *See* **Bolton** (—).

Pownall (*governor* —). *See* **Sayer** (R.)

Price (C.) **South America** | Corrected from the Observations | Communicated to the Royal Society's | of London and Paris. | By C. Price. | Sold by T. Brandreth & G. Willdey at ye Archi | medes & Globe in Ludgate Street & over against | ye Royal Exchange in Cornhill, where are made | & sold all sorts of Globes, Maps, Charts, & | Mathematical Instruments, &c. | No date [**London 1705?**]

Size, 35¼ x 25 inches.
Black; engraved boundaries, some of them hand colored.
Copy seen, L. C. (being no. 1 in a collection labeled *Old Maps of America*).

Quadus (Matthias). **Typvs orbis terrarvm**, ad imitationem vniversalis Gerhardi Mercatoris. Cuius secundum tam veterum quàm recentiorum supputationem 5400 miliaria Germanica ambitus complectitur. quanto id temporis spacio circumagi posset, hinc constabit. Qvid ei potest videri magnvm in rebvs hvmanis cvi aeternitatis omnis totivsqve mvndi nota sit magnitvdo. Cicero. **Köln 1608.**

Size, 8½ x 12½ inches.
Black; no boundaries.
[*In* Nordenskjöld (N. A. E.). Facsimile atlas, etc. fol. Stockholm 1889, pl. 49.]
Copy seen, G. S.

Radefeld (*capt.* —). Neueste Karte | von | **America** | Nach den bessten Quellen entworf. u. gezeich. | vom Hauptm. Radefeld. | **1843.** | Meyer's-Handatlas | N°. 2 | Stahlstich (Direction v. Kleinknecht) aus der Schweinfurter Geographischen Graviranstalt des Bibliograph. Instituts zu Hildburghausen, **Amsterdam**, **Paris** und **Philadelphia.** |

Size, 15 x 11¾ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C. no. 38.
NOTE.—*Shows the Cruz Cano line.*

Raleigh (*sir* Walter). Sir Walter Ralegh's karte von **Guayana** | mit dem Lauf des Orinoco und des Marañon oder Amazonas um **1595.** | Facsimile der im katalog des Britischen Museum unter Add. 17940 *a* | aufgeführten Manuscript-Karte. | Herausgegeben von | L. Friederichsen | 1892. |

Size, 21½ x 27 inches.
Black, with colored sailing courses; no boundaries.
[*In* Hamburgische festschrift zur errinnerung an die entdeckung Amerika's, etc. 2 vols. 8°. **Hamburg, 1892**, vol. 2, end.]
Copies seen, G. S., H. C., L., and MS. in State Department (Kohl coll. no. 374.)
NOTE.—*Reproduced in accompanying atlas, pl. 21.*

Rand & McNally. Rand, McNally & Co.'s indexed atlas of the world. Map of **Brazil and Guiana. Chicago**, Rand, McNally & Co. **1891.**

Size, 19 x 26 inches.
Colored.
Copies seen, L. C. and H. C. (marked $\frac{1891}{17}$).

Rand & McNally. Rand, McNally & Co.'s Indexed atlas of the world. Map of **Colombia and Venezuela. Chicago**, Rand, McNally & Co. **1891.**

Size, 19 x 26 inches.
Colored.
Copies seen, L. C, and H. C. (marked $\frac{1891}{18}$).

Rand & McNally. [Brazil and Guiana.] | **Guiana Boundary Dispute.** |

Size, 20 x 13 inches.
Colored; engraved boundaries.
[*In* Rand, McNally & Co.'s Universal Atlas, etc. 4°, **Chicago and New York, 1896**, pp. 242–243.]
Copy seen, L. C.

Rapin de Thoyras (Paul). A Map of | **North America** | With the European Settlements & | whatever else is remarkable in ÿ | West Indies from the latest and | best Observations. | R. W. Seale, delin. et sculp. |

Size, 15 x 18¼ inches.

Black; engraved boundary.

[*In* Rapin de Thoyras (Paul). The history of England * * continued by N. Tindal, etc. fol. London, 1744, vol. 3, end.]

Copies seen, L. C. and H. C.

NOTE.—*This map shows the southern part of the Popple line only. No boundary line separates Surinam from Nueva Andalusia. From Curipa lake one branch of the boundary runs south and another part of it west.*

Rapin de Thoyras (Paul). A Map of | **South** | **America** | With all the European | Settlements & whatever | else is remarkable | from the latest & best | Observations. | R. W. Seale delin et sculp. |

Size, 18¼ x 15 inches.

Black; engraved boundary along the Orinoco.

[*In* Rapin de Thoyras (Paul). The history of England * * * continued by N. Tindal, etc. fol. London, 1744, vol. 3, end.]

Copies seen, H. C., L. C., and G. S. (in collection labeled *Americas Maps*, vol. i, no. 90).

NOTE.—*Apparently both the geography and boundary are copied from Moll.*

Raynal (*l'abbe* G. T.) *See* **Bonne** (R.)

Reichard (C. G.) **Süd America** | von | C. G. Reichard | **Nürnberg** bei **Fr. Campe.** |

Size, 11¼ x 9¼ inches.

Black; engraved boundaries, hand colored.

[*In* Reichard (C. G.) Neuer Hand-atlas, etc., 14th edition. oblong. fol. Nürnberg, **1832**, pl. 26.]

Copy seen, V. C. no. 28.

NOTE.—*Shows a modified form of the Cruz Cano line.*

Reid (John). A | General Map | of | **South America** | From the Best | Surveys, | **1796.** | B. Tanner, sculpt. | **New York**, Published by John Reid. |

Size, 14½ x 17½ inches.

Black; engraved boundaries.

[*In* Reid (John). The American atlas; for Winterbotham's history of America, 1796. fol. New York, 1796, pl. 2.]

Copy seen, L. C.

NOTE.—*This appears to be the atlas to accompany Winterbotham's America. Apparently a copy of Russell (J.) 1794. The boundary is east of Essequibo river.*

Requena (Francisco). Mapa Geográfico | De la mayor parte de la **América Meridional** que | contiene | Los Paises por donde debe trazarse | La Línea Divisoria | que divida los Dominios de | España y

Portugal | Construido en virtud de Real Órden por | el Teniente General Dn. Francisco Requena | en el año de **1796.** | [Re]Printed by F. Bourquin, | 31 So. Sixth St. **Phila.**, Pa. [**No date.**]

Size, 49 x 38 inches.
Colored; engraved boundaries.
Copies seen, V. C. x, 9 and State Department.

NOTE.—*Shows the Cruz Cano line.*

Restrepo (José Manuel). Carta | del **Departamento** | **del** | **Orinoco** | ó de | Maturin. | Gravado en Paris por Darmet (**1827**) | Escrito por Hacq. |

Size, 11½ x 17½ inches.
Black; engraved boundaries, hand colored.
[*In* Restrepo (J. M.) Historia de la Revolucion de la Republica de Colombia. Atlas, 4°. **Paris**, 1827, pl. 5.]
Copy seen, V. C. no. 49.

NOTE.—*Shows a much restricted form of the Cruz Cano line.*

Robert (Gilles). **L'Amerique | Septentrionale et Meridionale |** divisée en ses principales parties | par les Srs Sanson geog. ordin. du Roi; | rectifiée suivant les nouvelles découvertes | et assujettie aux observations astronomiques, | par le Sr Robert geog. ord. du Roi. | Avec privilege | **1749.** | [**Paris.**] Gobin inv. et Sculpsit |

Size, 19½ x 25⅓ inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C. (being no. 19 in collection labeled *American Maps, 1606 to 1794*).
Another copy *in* Nolin (J. B.) Atlas (no title page), fol. Paris, 1755, no. 5.
Copy seen, C. B. Rogers, Towson, Md.

NOTE.—*Shows the Sanson line.*

Robert de Vaugondy (Didier). **Amérique | Méridionale,** | Dressée, sur les Mémoires les plus récents, | et assujétie aux observations astronomiques, | Par le Sr Robert de Vaugondy | fils de Mr Robert Géographe ordin. du Roy. | Avec Privilege. | **1750.** | Gobin fecit [**Paris**].

Size, 18¾ x 23 inches.
Black; engraved boundary; hand colored.
[*In* Robert (G.) and Robert de Vaugondy (D.) and Polonoise (S. M.) Atlas universal, etc. fol. **Paris** 1757, no. 101.]
Copies seen, L. C.; G. S. (in collection labeled *American Maps*, vol. ii, no. 163) and in Bancroft Collection in L.

NOTE.—*Shows the Sanson line. The engraver's name appears only on the G. S. copy.*

Robert de Vaugondy (—). **Amérique | Septentrionale,** | dressée, sur les Relations les | plus modernes des Voyageurs et Navigateurs, | et divisée suivant les differentes | possessions des Européens. | Par le Sr Robert de Vaugondy, | fils de Mr Robert Géographe ordin. du Roi. | Avec privilege. **1750.** |

Size, 18¼ x 23 inches.

Black; engraved boundary.

[*In* Robert (—) and Robert de Vaugondy (—) and Polonoise (S. M.) Atlas universel, etc. fol. **Paris, 1757, no. 97.**]

Copies seen, L. C.; G. S. (in collection labeled *American Maps*, vol. i, no. 27) and Bancroft collection in L.

NOTE.—*Shows the Sanson line.*

Robertson (William, *d. d.*) Map | of | **South America.** | For the Revd Dr Robertson's | History of America. | **London,** Longman & Co |

Size, 16 x 10 inches.

Black; no boundary.

[*In* Robertson (William, *d. d.*) The works of, etc., in 6 vols. 8°, **London, 1851,** vol. 5, at end.]

Copy seen, L. C.

Rodway (James). **Map of | British Guiana** |

Size, 10 x 8 inches.

Black; no boundary.

[*In* Rodway (J.) Hand-book of British Guiana, prepared under the direction of the Columbian Exposition literary committee of the Royal Agricultural and Commercial Society. 8°, **Georgetown,** British Guiana, **1893,** front.]

Copy seen, G. S.

NOTE.—*Small, crude map.*

Rodway (James). **Western boundary lines** at different periods.

Size, 7½ x 4½ inches.

Black.

[*In* Rodway (J.) History of British Guiana, etc.; in 3 vols., 8°, **Georgetown,** Demerara, **1894,** vol. 3, p. 165.]

Copy seen, State Department.

NOTE.—*A small woodcut, the map being black with white lines. Crude. Nine boundaries are shown.*

Roggeveen (Arent). **De Cust van | Westindien,** | Tusschen | Rio Demerary, en Rio d'Oronoque. | Beschreven | Door Arent Roggeveen. |

Size, 16½ x 20½ inches.

Hand colored chart.
[*In* Roggeveen (A.) Het eerste deel van het Brandende Veen, etc. fol. **Amsterdam, P. Goos, 1675**, pl. 4.]
Copy seen, L. C.

Rosa (R.) Plano | de los | **Estados Unidos** | **de** | **Venezuela** | Delineado con arreglo a las mas recientes i autenticas | autoridades, siendo las principales, el Plano Corografico de | Codazzi, las cartas levantados por el Almirantazgo Británico | i las de los S. S. Blunt, por el ingeniero civil coronel R. Rosa. | Publicado por | Pond y Kyle, **Nueva York** | C. Z. Pond. W. R. Kyle. **1865.** |

Size, 21 x 30 inches.
Black; photo-lith.; engraved boundaries.
[*In* Eastwick (Edward B.) Venezuela; 2d edition. 8°, London, 1868, at end.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Rossi (Luigi). **L'America** | **Meridionale** | G. Sasso e M. Bonatti | Incisero l'Anno **1821.** |

Size, 15 x 27¾ inches.
Black; engraved boundaries, hand colored.
[*In* Rossi (Luigi). Nuovo Atlante. vol. 2, fol. **Milano**, presso Battelli e Fanfani. (Title page missing), no. 35.]
Copy seen, V. C., no. 24.

NOTE.—*Shows the Cruz Cano line.*

Rossi (Luigi). *See also* **Poirson** (J. B.)

Royal Geographical Society. For maps in its publications *see*
Alexander (J. E.)
Dixon (G. G.)
Hilhouse (W.)
Im Thurn (E. F.)
Schomburgk (R. H.)
Whitely (H.)

Russell (J.) A | General Map | of | **South America** | Drawn from the best surveys | By J. Russell, | **1794.** | **London**, Publish'd as the Act directs Sepr. 6, 1794, by H. D. Symonds, N°. 20 Pater Noster Row. J. Russell sculp^t. Constitution Row, Gray's Inn La^e.

Size, 14½ x 17¾ inches.
Black; engraved boundaries, hand colored.
[*In* Russell (J.) An American atlas, fol. London, 1795, pl. 2.]
Copy seen, L. C.

NOTE.—*There is a recent undated fac-simile of this map in the V. C., no. 48. Boundary is east of the Essequibo river.*

Russell (J.) **South | America,** | Drawn from the best authorities | By J: Russell. | Engraved for Guthries new System of Geography. | **London,** Published as the Act directs by Wilkie & Robinson, J. Mawman, and the other Proprietors; **1811.** | J. Russell sculpsit |

Size, 15½ x 17¾ inches.

Black; engraved boundaries, hand colored.

[*In* Guthrie (William). A System of Modern Geography, 7th ed. 4to, London, 1811, p. 977.]

Copy seen, L. C.

NOTE.—*The boundary is east of the Essequibo river.*

Salmon (Thomas). **South | America** | T. Jefferys sculp. |

Size, 7¼ x 9 inches.

Black; engraved boundary.

[*In* Salmon (T.) A new geographical and historical grammar, etc., with a set of 23 new maps drawn by the direction of Mr. Salmon and engraved by Mr. Jefferys, geographer to H. R. H. the Prince of Wales. 6th ed., 12°, London, 1758, p. 556.]

Copy seen, L. C.

NOTE.—*Boundary resembling Delisle 1722, separates Guiana from Terra Firma.*

Salmon (Thomas). **South | America** | T. Jefferys sculp. |

Size, 7¼ x 9 inches.

Black; engraved boundary.

[*In* same; 7th ed., 12°, **London, 1760**, p. 557.]

Same map in 9th ed., London, 1764. p. 522, with newly engraved title and Jefferys' name omitted.

Copies seen, L. C.

Salmon (Thomas). **South | America** | T. Phinn sculpt. |

Size, 7 x 9 inches.

Black; engraved boundary.

[*In* Salmon (T.) The new universal geographical grammar, etc. 2d ed. brought down to the present time by J. Tytler. 12°, **Edinburgh, 1782**, p. 689.]

Copy seen, L. C.

Salmon (Thomas). **West Indies.**

[*In* Salmon (T.) A new geographical and historical grammar, etc., with a set of 23 new maps drawn by the direction of Mr. Salmon and engraved by Mr. Jefferys, geographer to H. R. H. the Prince of Wales. 6th ed. 12°, **London, 1758**, p. 625. *Not seen;* missing from L. C. copy.

Salmon (Thomas). **West** | **Indies.** | T. Jefferys, sc. |

Size, 7¼ x 11½ inches.
Black; no boundary; Guiana extends to the Orinoco.
[*In* same; 7th ed., 12°, **London, 1760**, p. 625.]
Same map in 9th ed., **London, 1764**, p. 543, with Jefferys' name erased.
Copies seen, L. C.

Salmon (Thomas). **West** | **Indies.** |

Size, 6¾ x 11½ inches.
Black; no boundary; Guiana extends to the Orinoco.
[*In* Salmon (T.) The new universal geographical grammar, etc. 2d ed., brought down to the present time by J. Tytler. 12°, **Edinburgh, 1782**, p. 670.]
Copy seen, L. C.

Sanson (Guillaume). **Amerique** | **Meridionale** | Par N. Sanson Geographe Ord^re^ du Roy. Reveuë et changée en plusieurs endroits | suivant les Memoires les plus recents. | Par G. Sanson Geogr.' Ordinaire du Roy. | A **Paris** | Chez Pierre Mariette ruë S. Iacques à l'Esperance. | Avec privilege de sa Mait pour 20 Ans. | **1669.** |

Size, 15½ x 22 inches.
Black; engraved boundaries, hand colored.
Copy seen, L. C. (being no. 9 in collection labeled *Cartes receuillies* en un tome en 1679 *par* J. **Cappel.**)

NOTE.—*Shows the Sanson line. Same line shown on larger scale on no. 118 of same collection.*

Sanson d'Abbeville (Nicholas). **Ameriqve** | **Meridionale.** | Par le Sr Sanson d'Abbeville Geog. du Roy. | A **Paris** | chez P. Mariette, rue S. Iacques a l'Esperance. | Avec Privilege du Roy pour vingt Ans. | *A*eyrounin sculp. |

Size, 7⅞ x 11 inches.
Black; engraved boundaries, hand colored.
[*In* Sanson d'Abbeville (N.) L'Amériqve, en plvsievrs cartes, etc. 4°, Paris, (**1657?**) no. 8.]
Copies seen, L. C., H. C., and L.

Sanson d'Abbeville (Nicholas). **Ameriqve** | **Meridionale** | Par N. Sanson d'Abbeville Geographe du Roy. | A **Paris** chez l'Autheur. | Et chez Pierre Mariette, rue S Iacques à l'Esperance. | Auec priuilege du Roy pour 20 ans | **1650.** | *A*eyrounin sculp. |

Size, 15¾ x 21½ inches.

Engraved boundaries, hand colored.

Copies seen, H. C., accompanying a MS. by Adrien Jourdan; L. C., inserted in Linschoten (Jan Huyghen van). Description de l'Amerique. fol. Amsterdam. 1638.

NOTE.—*Shows the original Sanson line. Reproduced in accompanying atlas, pl. 29.*

Sanson d'Abbeville (Nicholas). **Amerigve | Meridionale** | par N. Sanson d' | Abbeville Geographe Ordinai. | du Roy. |

Size, 7¾ x 11 inches.

Black; engraved boundaries.

[*In* Sanson d'Abbeville (N.) Geographische en historische beschryvingh, etc. 4°, Utrecht, J. Ribbius, 1683, p. 632.]

Copy seen, L. C.

NOTE.—*Gviane is an interior region with engraved boundary. Caribane is on the coast. Eastern boundary of N. Andalousia is engraved boundary along north bank of the Orinoco.*

Sanson d'Abbeville (Nicholas). **Guiana** | divisée en | Guiane, et Caribane. | Par N. Sanson d'Abbeville | Geographe ord^re du Roy. | A **Paris.** | chez Pierre Mariette | rue S. Iacques a l'Esperance | Avec **Privil. du R. pour | vingt ans.** |

Size, 8 x 10¾ inches.

Black; engraved boundaries, hand colored.

[*In* Sanson d'Abbeville (N.) L'Amériqve en plvsievrs cartes, etc. 4°, Paris, (1657?) no. 10.]

Copies seen, L. C., H. C. and L.

NOTE.—*Shows the Sanson line; settlements on the Corentin and at St. Thomas only.*

Sanson d'Abbeville (Nicholas). **Guiane** | diviseé en | Guiane et Caribane | Par N. Sanson | d'Abbeville geographe | ord^re du Roy. |

Size, 7¾ x 10¾ inches.

Black; engraved boundaries.

[*In* Sanson d'Abbeville (N.) Geographische en historische beschryvingh der vier bekende werelds-deelen, etc. 4°, Utrecht, J. Ribbius 1683, p. 640.]

Copy seen, L. C.

Sanson d'Abbeville (Nicholas). Partie de Terre Ferme | ou sont | **Gviane et Caribane.** | Augmentée et Corrigée suiuant | les dernieres Relations. | Par N. Sanson d'Abbeville Geographe ord^re du

Roy. | A **Paris.** | Chez l'Autheur | auecq priuilege du Roy pour vingt Ans. | **1656.** |

Size, 16¼ x 21½ inches.

Black; engraved and hand colored boundary.

Copy seen, V. C., x, 3, and H. C., (marked $\frac{4620}{10}$).

NOTE.—*Shows the Sanson line. A part of this map is reproduced in the accompanying atlas, pl. 30.*

Sanson d'Abbeville (Nicholas). **L'hydrographie** ou Description de l'Eau c'est a dire | des Mers, Golfes, Lacs, Destroits, et Rivieres principales, qui sont dans la Surface **du Globe Terrestre.** Par. le Sr Sanson d'Abbeville, Geog^r^. Ord^re^ du Roy. | A **Paris** | Chez l'Auteur, Rue de l'Arbre Secq, Pres de S^t^. Germain l'Auxerrois. | Aveq Priuilege du Roy pour vingt Ans. **1652.** |

Size, 15½ x 20¾ inches.

Black; engraved boundary.

Copy seen, L. C.; inserted *in* Linschoten (J. H. van). Histoire de la navigation, etc. fol. Amsterdam 1638.

NOTE.—*Shows the Sanson line.*

Sanson d'Abbeville (Nicholas). **Terre Ferme,** | Nou^veau^, Roy^me^ de Grenade, &c. | Par N. Sanson d'Abbeville Geog^r^. | ord^re^ du Roy. |

Size, 7½ x 11¼ inches.

Black; engraved boundary.

[*In* Sanson d'Abbeville (N.) Geographische en historische beschryvingh der vier bekende werelds-deelen, etc. 4°, **Utrecht,** J. Ribbius, **1683,** p. 636.]

Copy seen, L. C.

NOTE.—*Shows the Sanson boundary line.*

Sanson d'Abbeville (Nicholas). **Terre Ferme.** | ou sont les | Governations, ou Gouvernemens de | Terre Ferme, Cartagene, S^te^. Marthe, | Rio de la Hache, Venezuela, Nouvelle | Andalusie, Popayan, Nou^veau^ Roy^me^ de Grenade, &c. | Tirée de divers Autheurs, et de divers Relations. | Par. N. Sanson d'Abbeville Geographe ordinarie du Roy. | A **Paris.** | Chez Peirre Mariette, Rue S Iacque a l'Esperance | Avec Privilege du Roy pour vingt Ans. | **1656.** |

Size, 15¾ x 21 inches.

Black; engraved boundary, hand colored.

Copy seen, L. C., (being no. 118 in collection labeled *Cartes receuillies* en un tome en 1679 par J. Cappel); also H. C., (marked $\frac{4600}{5}$).

NOTE.—*Shows the Sanson line.*

Sanson d'Abbeville (Nicholas). **Terre Ferme,** | Nou^veau Roy^me de Grenade, &c. | Par N. Sanson d'Abbev. Geogr. ord^re d. R. | **A Paris** | chez P. Mariette rue S. Iacques a l'Esperance | **Avec Privilege** du Roy pour vingt ans. |

Size, 7¼ x 11⅞ inches.
Black; engraved boundaries, hand colored.
[*In* Sanson d'Abbeville (N.) L'Ameriqve en plvsievrs cartes, etc., 4°. Paris **(1657?)**, no. 9.]
Copies seen, L. C., H. C., and L.
NOTE.—*Shows the Sanson line.*

Santini (P.) Carte du | **Pérou et Brésil sep^t.** | **de Tierra-Firme,** | **de Guayana,** | **et** de la rivière | des **Amazones**: | ce qui fait la partie Boreale de l'Amerique Meridi^e par le S^r **D'Anville. A Venise.** Par P. Santini, **1779.** Chez Mr Remondini.

Size 18½ x 26½ inches.
Black; engraved boundaries, hand colored.
Copy seen, H. C. (marked $^{1}/_{30}$).
NOTE.—*Reprint of D'Anville as the title indicates.*
See also **Janvier** (J.)

Sayer (Robert). A General Map | of | **America,** | divided into North and South, | and | West Indies, | with | the Newest Discoveries. | **London**: | Printed for Robt Sayer, N°. 53 Fleet Street, | as the Act directs 2d March | **1772.** |

Size, 19¼ x 21 inches.
Black; engraved boundaries, hand colored.
Copy seen, G. S. (in collection labeled *American Maps* vol. i, no. 80).

Sayer (Robert). A Map | of the **Whole Continent** | **of** | **America,** | divided into | North and South and West Indies | with a Copious Table | Fully shewing the several possessions of each | European Prince & State, | As settled by the | Definitive Treaty concluded at Paris Feby. 10th, 1763. | the Clauses of which relative thereto are inserted. | Compiled from M^r **D'Anvilles** Maps | of that Continent. | 1772. | **London** | Publish'd as the Act Directs, 1st April, **1772.** | Robt. Sayer, By Map & Printseller at the Golden Buck near Serjeants Inn Fleet Street. |

Size, 40¾ x 47 inches, in two sheets.
Black; engraved boundaries, hand colored.
Copy seen L. C. (being numbers 31 and 32 of collection labeled *American Maps*, 1606 to 1794); also in Bancroft collection in L.

Sayer (Robert). A new map of the whole continent of **America** divided into North and South and West Indies, with a descriptive account of the European possessions, as settled by the Definitive Treaty of Peace, concluded at Paris Feby. 10th, 1763. Compiled from M^r^. **D'Anville's** maps of that continent and corrected in the several parts belonging to Great Britain from the original materials of Governor **Pownall**, M. P. **London**, Printed for Robt. Sayer and John Bennett, No. 53 Fleet Street, as the Act directs, 15th Feby., **1777.**

Copy seen, H. C. (?)

NOTE.—*Perhaps the edition of 1772 was a first one and this a second one.*

Sayer (Robert). A new Map | of the | Whole Continent | of **America,** | divided into | North and South and West Indies. | wherein are exactly Described | the United States of North America | as well as the several European possessions | according to the Preliminaries of Peace signed at Versailles Jan. 20. 1783. | Compiled from Mr. D'Anville's Maps of that Continent, | with the addition of the Spanish Discoveries in 1775 to the North of California | & Corrected in the several Parts belonging to Great Britain, | from the Original Materials of Governor Pownall, M. P. | **London.** | Printed for Robt. Sayer, Map, Chart & Printseller, | N°. 53 Fleet Street, | as the Act directs, 15th August, | **1786.** |

Size, 40¾ x 46¾ inches, in two sheets.

Black; engraved boundaries, hand colored.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, nos. 4 and 5).

NOTE.—*Shows the Sanson line.*

Sayer (Robert). A Map | of | **South America** | Containing | Tierra-Firma, Guayana, New Granada | Amazonia, Brasil, Peru, Paraguay, | Chaco, Tucuman, Chili and | Patagonia. | from M^r^. **D'Anville** | with Several Improvements and Additions, | and the Newest Discoveries. | **London.** | Printed for Robert Sayer, N°. 53 Fleet Street | as the Act Directs 20 | September | **1772.** |

Size 39½ x 47 inches, in two sheets.

Black; engraved boundaries, hand colored.

Copy seen, L. C. (being numbers 28 and 29 of collection labeled *American Maps*, 1606 to 1794).

Sayer (Robert). A Map | of | **South America** | Containing | Tierra-Firma, Guayana, New Granada, | Amazonia, Brasil, Peru, Paraguay, | Chaco, Tucuman, Chili and | Patagonia. | from M^r. D'Auville | with Several Improvements and Additions, | and the Newest Discoveries. | **London.** | Printed for Robert Sayer, No. 53 Fleet Street, | as the Act Directs | July the 1st, **1787.** |

Size, 39½ x 46¾ inches in two sheets.

Copy seen, G. S. (in collection labeled *American Maps*, vol. i, nos. 58 and 59).

Schenk (Peter, jr.). **Insulæ Americanæ** in oceano septentrionali ac regiones adiacentes, a C. de May usque ad lineam Æquinoctialem. Per Nicolaum Visscher, cum privilegio ordinum Hollandiæ et Westfrisiæ. Nunc apud Petrum Schenck, Junior. [**No date, Amsterdam.**]

Size, 18 x 22 inches.

Hand colored.

Copy seen, H. C.

NOTE.—*Shows the Sanson line.*

Schenk (Peter) and **Valk** (Ger.) Insvla | S. Iuan de Puerto | Rico | Caribes; | vel | Canibalum | insulæ. |
Amstelodami apud | Pet. Schenk et Ger. Valk. | [**No date.**]

Size, 15¾ x 20 inches.

Black; no boundaries.

Copy seen, L

NOTE.—*A sailing chart. The name Gvaiana crosses the Orinoco; west of it is Paria.*

Schlieben (W. E. A. von). **Guiana.**

I. Das Britische
II. Das Niederlaendische } Guiana.
III. Das Französische

Lith. von W. Werner.

Size, 7¾ x 10¼ inches.

Black; engraved boundaries, hand colored.

[*In* Schlieben (W. E. A. von). Atlas von Amerika, etc. 4°. **Leipzig, 1830,** pl. K.]

Copy seen, L. C.

NOTE.—*Shows a modified form of the Cruz Cano line.*

Schlieben (W. E. A. von).

Die Rep. Departement | **Columbia**: |

1. Orinoco. 2. Venezuela. 3. Maturin. 4. Zulia. 5. Boyaca. |

Lith. von. W. Werner. |

Size, 7¾ x 10¼ inches.

Black; engraved boundary, hand colored.

[*In* Schlieben (W. A. E. von). Atlas von Amerika, etc. 4°. **Leipzig, 1830,** pl. H.]

Copy seen, L. C.

NOTE.—*Shows a modified form of the Cruz Cano line.*

Schloezer (August Ludwig). **Süd | Amerika.** |

Size, 13 x 13¾ inches.

Black; engraved boundary line.

[*In* Schloezer (A. L.). Neue Erdbeschreibung von ganz Amerika. 12°. **Goettingen und Leipzig, 1777**, p. 718.]

Copy seen, L. C.

NOTE.—*Copy of D'Anville line of 1748.*

Schmidt (I. F. M.) **America.** Gezeichnet vom Professor I. F. M. Schmidt. **Berlin** bei Simon Schropp et co. **1820.** Franz sc.

Size — x — inches.

Engraved boundary; hand colored.

Copy seen in collection of Rev. J. H. W. Stuckenberg, Cambridge, Mass.

NOTE.—*Shows the Cruz Cano line.*

Schomburgk (Richard). **Das | mündungsland | des | Essequibo, | Demerara und Berbice.** |

Also on same plate:

Das Quelland | des | Caroni und Cotinga. | Geo. lithograph Anst. v. H. Mahlmann. | **Berlin, 1847.** |

Size, 9 x 5 inches.

Colored; no boundaries.

[*In* Schomburgk (Richard). Reisen in Britisch-Guiana in den jahren 1840–1844. 8°, Leipzig, J. J. Weber, 1847, v. 1, front.]

Copy seen, State Department.

Schomburgk (*sir* Robert Herman). **British Guayana**, | By | Robt. H. Schomburgk, Esqr | **1836.** | Published, for the Journal of the Royal Geographical Society, by John Murray, Albemarle Street, **London**, 1836. | John Arrowsmith |

Size, 14½ x 7½ inches.

Black; no boundaries.

[*In* Royal Geographical Society Journal. 8°, London, 1836, vol. 6, p. 282.]

Copy seen, L. C., State Department and G. S.

NOTE.—*Chiefly devoted to the Essequibo river. See p. 283 of vol. cited for description of this map. Same map with additions and dated 1837 appears in same, vol. 7, p. 350.*

Schomburgk (*sir* Robert Herman). Sketch map | of | **British Guiana,** | by | Sir Robert H. Schomburgk. | **London.** Edward Stanford, 6, Charing Cross. | [**1867.**]

Size, 7¼ x 9¼ inches.

Black; no boundaries.

[*In* Agricultural and Commercial Society of British Guiana. Exposition universelle de Paris, 1867. Catalogue des produits exposés par la Guyane Anglaise, etc. 12°, Londres, 1867, p. vii.]

Copy seen, L. C.

Schomburgk (*sir* Robert Herman). Sketch map of | **British Guiana,** | by | Sir Robert H. Schomburgk. | **London.** Edward Stanford, 6, Charing Cross. [**1867.**]

Size, 10¼ x 6½ inches.

Black; engraved boundaries "as claimed."

[*In* Agricultural and Commercial Society of British Guiana. Exposition universelle de Paris, 1867. Catalogue des produits exposés par la Guyane Anglaise, etc. 12°, Londres, 1867, front.]

Copy seen, L. C.

Schomburgk (*sir* Robert Herman). Sketch map | of | **British Guiana,** | by Sir Robert H. Schomburgk. | Wertheimer & Co., Lith., Circus Pl., London Wall. |

Size, 7¾ x 9½ inches.

Black; no boundaries.

[*In* Holmes (Sir W. H.) Free cotton, etc. 8°, **London**, Chapman & Hall, **1862**, front.]

Copy seen, L. C.

Schomburgk (*sir* Robert Herman). Map of | **Guayana** | to Illustrate the **route** | **of** | **R. H. Schomburgk,** Esqr | **1840** | Pub^{d} for the Journal of the Royal Geographical Society, by John Murray, Albemarle Street, **London,** 1840. | John Arrowsmith |

Size, 11 x 15¼ inches.

Black; no boundaries.

[*In* Royal Geographical Society Journal. 8°, London, 1841, vol. 10, p. 158.]

Copy seen, L. C., State Department and G. S.

Schomburgk (*sir* Robert Herman). Part of | **Guiana** | **to illustrate the excursions of** | The Chevalier Robt H. **Schomburgk** | in **1841.** | Pub^{d} for the Journal of the Royal Geographical Society by John Murray, Albemarle S^{t}., **London, 1843.** | John Arrowsmith. |

Size, 8 x 8¾ inches.

Black; no boundaries.

[*In* Royal Geographical Society Journal. 8°, London, 1842, vol. 12, at end.]

Copies seen, L. C. and G. S.

NOTE.—*Reproduced, on twice the scale of the original, in 1896, to accompany brief of J. J. Storrow, of counsel for Venezuela.*

Schomburgk (*sir* Robert Herman). **Map's | of the limits | of | British Guiana** | surveyed under | Her Majesty's Commission | by Robert H. Schomburgk | Knight of the Prussian Order of the Red Eagle, 3rd Class | **General Map | N°. 1** | The limits between British Guiana and Venezuela. | Drawn and coloured by Robert H. Schomburgk. | I. D. W. O. No. 1191. | Heliozincographed at the Ordnance Survey Office, **Southampton, 1896.** |

Size, 30 x 39¼ inches.

Black; engraved and colored boundaries; also the water is colored blue.

Scale, about 5¾ English miles to one inch.

[*In* Great Britain. Blue Book. Venezuela. No. 5 (1896). Further documents relating to the question of boundary between British Guiana and Venezuela. Sir R. Schomburgk's reports. [With a map] fol. London, August, 1896.]

NOTE.—*The southern limit of this map is latitude 6° 17′, the western 1° 40′ west from the meridian passing through the shell bank at the mouth of the Waini river. The boundary shown (to the limits of the map) is that which appears on the second edition of the great map of the colony. See accompanying atlas, map 1.*

Schomburgk (*sir* Robert Herman). Map's | of the **limits | of | British Guiana** | surveyed under | Her Majesty's Commission | By | Robert H. Schomburgk | Knight of the Prussian Order of the Red Eagle 3rd Class | General Map | N° 1 | The limits between British Guiana and Venezuela. | Drawn and Coloured by Robert H. Schomburgk. |

Size, 32 x 39¼ inches.

Black; dotted and colored boundary.

NOTE.—*Shows the boundary (as far as the map goes) published on the 2d ed. of the great map of the colony. This map is a manuscript vellum tracing of the original in the Colonial Office, and was furnished to the Commission by Great Britain. It contains three indorsements, as follows:*

First. B. Guiana No. 426 (Colonial Office Catalogue).

Second. Enc: in Govr. Lights Disp. No° 163/1841.

Third. I certify that this tracing is an exact copy of the original map No. 426 Colonial Office Catalogue.

J. C. ARDAGH,
Maj: General,
Director of Military Intelligence

27 May 1896

Schomburgk (*sir* Robert Herman). **Map of | British Guiana | compiled from the surveys | executed under | Her Majesty's Commission | from 1841 to 1844. | And under the direction of | the Royal Geographical Society | from 1835 to 1839. | By Sir Robert H. Schomburgk, K. R. E., P^ll D. | Revised and corrected to the present time | by Cathcart Chalmers, Esq. crown surveyor of the colony. | And James Gay Sawkins, Esq. director of the geological survey of the | West Indies and British Guiana. | With additions by Charles B. Brown, Esq. | Engraved under the superintendence of William Walker, Esq. | 1875. | [London.]**

Size, 61 by 50 inches, in 4 sheets.

Black; engraved and colored boundaries.

Scale, 9 1/10 statute miles to *one* inch (*erroneously* 7 statute miles to one inch by the printed bar scale).

NOTE.—*This fine, large map, published in London by Stanford, is sometimes spoken of as the great map of the colony. Upon it, the boundary, starting from the mouth of the Amacura, ascends that stream to the vicinity of Mt. Arikita in about longitude 60° W.; thence it takes a generally south course, crossing the Barima and Barama rivers near or at the first falls encountered in their ascent; thence bending to westward it crosses the Cuyuni at the mouth of the Otomony and follows the latter stream to its source; thence it runs westward and crosses the Mazaruni at the great bend; thence it runs southerly to the divide between the Carabung and the Stenaparu rivers, and curving westward recrosses the Mazaruni and runs to Mt. Iru-tipu, after which it follows the crest of the mountains to Mt. Roraima.*

As to boundaries, the map contains the following note:

The boundaries indicated in this Map are those laid down by the late Sir Robert Schomburgk, who was engaged in exploring the Colony during the years 1835 to 1839, under the direction of the Royal Geographical Society. But the boundaries thus laid down between Brazil on the one side and Venezuela on the other and the colony of British Guiana must not be taken as authoritative; as they have never been adjusted by the respective governments: And an engagement subsists between the Governments of Great Britain and Venezuela by which neither is at liberty to encroach upon or occupy territory claimed by both.

Another edition of the above was published by Stanford in 1886 or 1887, but with the date 1875 retained. This second edition differs from the above or first edition in that it has new and correct bar scales in place of the old and erroneous ones; in that the note about the boundary is omitted, and in that the boundary line from Mt. Arikita to Mt. Roraima has been changed. The new line is to the west of the old one. Both lines are

shown on map 1 of the accompanying atlas, being copied from the two editions of the great map of the colonies here described.

Reduced copies of this map have also been published. See Im Thurn and Roy. Geog. Soc. Proc. 1880, vol. 2, p. 528.

Schomburgk (*sir* Robert Herman). Sketch map of | **British Guiana**, | by Robert H. **Schomburgk** Esqre. | **London**, John Arrowsmith, 10 Soho Square **1840**. |

Size, 17½ x 10 inches.

Black; engraved boundary, hand colored.

[*In* Schomburgk (R. H.) A Description of British Guiana, etc. 12°, London, 1840, front.]

Copies seen, G. S. and W. Hallett Phillips.

NOTE.—*Shows boundary lines as claimed by Great Britain and by Venezuela.*

Schomburgk (*sir* Robert Herman) Sketch map of | **British Guiana**, by Robert H. Schomburgk, Esqre. | John Arrowsmith, Lithog. | Luke G. and Luke J. Hansard, Printers. | Ordered, by the House of Commons to be printed, 11th May, **1840**. | 288 |

Size, 17¾ x 10 inches.

Black; engraved boundaries, hand colored.

[*In* Great Britain. Parliamentary Papers, Session, 16 January–11 August, 1840. fol. **London**, 1840, vol. 34, no. 288, at end.]

Copy seen, L. C. and W. Hallett Phillips.

NOTE.—*Map identical with the preceding one.*

Schomburgk (*sir* Robert Herman). Karte | von | **Britisch-Guyana**, | nebst dem | Quellande des Parima (Rio Branco) und Orinoco, | Vornehmlich nach den in den Jahren 1835–44 veranstalteten, im | Colonial-Office zu London befindlichen Aufnahmen des | Sir Robert H. Schomburgk. | **1846**. | **Leipzig**. Verlag v. J. J. Weber. | Berlin. Geolithogr. Anst. v. H. Mahlmann. |

Size, 15¼ x 18½ inches.

Colored; colored boundaries, not engraved.

[*In* Schomburgk (Richard). Reisen in Britisch-Guiana in den Jahren 1840–1844. 3 vols. 8°, Leipzig, 1847–48, vol. i, at end.]

Copy seen, State Dept.

Schomburgk (*sir* Robert Herman). Map to illustrate sir **Walter Raleigh's voyage** from the island of Trinidad to the lower Orinoco. Compiled from personal observations and Codazzi's atlas of Venezuela by sir Robert H. Schomburgk, Ph. D., &c. Published by the Hackluyt Society **London** May **1848**. J. & C. Walker sculpt.

Size, 8½ x 13½ inches.

Black; no boundaries.

[*In* Raleigh (sir Walter). The discovery of the large, rich and beautiful empire of Guiana, etc., edited by Sir R. H. Schomburgk. 12°. London for the Hakluyt society 1848, front.]

Copies seen, L. C., and State Dept.

Schomburgk (*sir* Robert Herman). **Mapa | para ilustrar | los viajes de Sir Walter Ralegh** | desde la | isla de Trinidad | hasta el | bajo Orinoco. | Compilado de observaciones personales y del | Atlás de Venezuela de Codazzi, por | Sir Robert Schomburgk. |

Size, 8 x 13¼ inches.

Black; no boundary.

[*In* Michelena y Rójas (Francisco). Exploracion oficial por la primera vez desde el norte de la America del Sur, etc. 8°. Bruselas, 1867, p. 141.]

Copy seen, L. C. and P. Lee Phillips, Washington, D. C.

Schomburgk (*sir* Robert Herman). *See* also **Hebert** (L. J.)

Seller (John). A | General Chart | of the | **West India's.** | By John Seller. | His Maties Hydrographer. |

Size, 17 x 20¼ inches.

Hand colored; no boundaries.

[*In* Seller (John). Atlas maritimus or the sea atlas, etc. fol. London, 1675, no. 8.]

Copy seen, L. C.

NOTE.—*The region between the Amazon and Orinoco is Guaiana.*

Seller (John). A Chart of the | **Western** | **Ocean.** | By John Seller | Hydrographer | to the King. [**London, 1675.**]

Size, 17 x 21 inches.

Hand colored; no boundaries.

[*In* Seller (John). Atlas maritimus or the sea atlas, etc. fol. London, 1675, no. 39.]

Copy seen, L. C.

Senex (John). **South** | **America** | Corrected from the | Observations communi | cated to the Royal Soci | ety's of London & Paris. | By John Senex, at the | Globe against S^t^. Dunstans | Church Fleet-street. | Engrav'd by John Senex. | H. Hulsbergh Sculp: | Dedicated to Edmund Halley, LL. D. [**No date, 1708?**]

Size, 3 ¾ x 25½ inches.

Colored; engraved boundary.

Copy seen, L. C. (being no. 13 of collection labeled *American Maps*, 1710–1777); also in L. C. in Senex (J.) Modern Geography, etc. fol. London, no date; no. 7.

NOTE.—*The map seems to be by John Maxwell, whose name is imperfectly erased and that of Senex substituted. Almost identical with the Price map.*

Simon (Pedro). A map shewing the track of the **expedition of Pedro de Ursua and Lope de Aguirre**, A. D. **1560-61.** [**London, 1861.**]

Size, 10 x 15 inches.

Colored; a modern map by Stanford, of London; no boundaries.

[*In* Simon (Pedro). The expedition of Pedro de Ursua & Lope de Aguirre in search of El Dorado and Omagua in 1560–1. Translated by Wm. Bollaert. 8°, **London**, for Hakluyt Society, **1861.** Hak. Soc. works, vol. 28, front.]

Copy seen, L. C.

Smiley (Thomas T.) **South America** | Drawn & Engraved under the direction of H. S. Tanner, for the Atlas to accompany Smiley's Easy Introduction to the Study of Geography, **1830.** | J. Knight Sc. | [Copyright 1830.]

Size, 10½ x 7¾ inches.

Colored; engraved boundaries.

[*In* Smiley (Thomas T.) An improved atlas, etc. 4°, Philadelphia, 1824, pl. 6.]

Copy seen, Ralph Moser, Greencastle, Jasper county, Iowa.

[Also *in* Smiley (T. T.) A new atlas, etc., for the use of schools. 8th edition, 4to, **Philadelphia**, 1830. no. 6.]

Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line.*

Spain (Kingdom of). Mapa de los rios **Amazonas, Esequivo ó Dulce y Orinoco** y de las Comarcas adyacentes. | Reproducido por la lit. del Instituto Geográfico y Estadistico. Año de 1877.

Size, 19 x 25 inches.

Colored; recent fac-simile of very old map.

[*In* Spain (Kingdom of). Ministerio de fomento. Cartas de Indias. fol. **Madrid, 1877**, at end.]

Copies seen, L. C. and H. C.

NOTE.—*The dates 1536, 1546, 1553, and 1554 are found in notes on the map. Nothing found in the text relating to the map. The coast region has the name Arvacas. A small tract south of the Orinoco and east of the Caroni is marked Guayana oy oro guani.*

Speed (John). **America** | with those known parts in | that unknowne worlde | both people and manner | of buildings Discribed | and inlarged by I. S. Ano. **1626** | Abraham Goos Amstelodamensis sculpsit. |

Size, 15½ x 20 inches.

Black; engraved boundary showing Guiana in the interior.

[*In* Speed (J.). A prospect of the most famous parts of the world. fol. **London**, printed by J. Dawson for G. Humble, 1631, pp. 9–10.]

Another copy in same. fol. London, for T. Basset and R. Chiswel, 1676, pp. 9–10.

Copies seen, L. C.

NOTE.—*Reproduced in accompanying atlas, pl. 22.*

Speed (John). **America** | Petrus Kærius Cælav. | Anno D° **1646** |

Size, 3¼ x 4⅛ inches.

Black; no boundaries.

[*In* **Speed** (J.) A prospect of the most famous parts of the world. (anon.) sm. oblong fol. **London**, 1646, p. 44.]

Copy seen, L. C.

NOTE.—*Shows Guiana between the Amazon and Orinoco. Caribana does not appear.*

Stanford (Edward). The **British Colonies and Possessions** | on an uniform scale | Stanford's Geographical Establishment, **London.** | 9.10.85. | Sold at the Depositories. Northumberland Avenue, Charing Cross, S. W.; 43 Queen Victoria S^t^., E. C.; 26 S^t^. George's Pl. S. W.; & the Sanctuary, Westminster; also by Edward Stanford, 55 Charing Cross, London. August 4th, **1885.**

Size, 51 x 58 inches, in four sheets.

Colored; engraved boundaries.

Copy seen, State Department.

Stanford (Edward). **Stanford's map of** | **Guiana and Venezuela** | **showing** the **territorial claims** of | Britain and Venezuela | France and Brazil | London. Stanford's Geog^l^ Estab^t^ | London: Published by Edward Stanford, 26 & 27 Cockspur Street, Charing Cross, S. W. Decr 19th **1895.**

Size, 18 x 24¾ inches.

Colored; engraved boundaries.

Copy seen, G. S. (numbered 10491).

Stedman (John Gabriel). A Map of | **Guiana** | &c. | by J. G. Stedman | T. Conder Sculpsit. |

Size, 8 x 17½ inches.

Black; engraved boundaries.

[*In* Stedman (J. G.) Narrative, etc. 4°, **London, 1796,** vol. 1, p. 1.]

Copy seen, L. C.

NOTE.—*Has two engraved boundaries, one along the Pomeroon, the other between the Pomeroon and Essequibo. Dutch settlements extend from Cape Nassau to the river Maraicini along the coast of the Atlantic ocean. vol. 1, p. 34.*

Stedman (John Gabriel). Carte | de la | **Guiane** | Par | J. G. Stedman | Gravé par Tardieu, l'ainé Rue des Noyers N° 3 près Rue de Sorbonne N° 385. | [**Paris, no date.**]

Size, 8 x 17½ inches.
Black; engraved boundary.
Copy seen, V. C., no. 61.

NOTE.—*The boundary runs along the Pomeroon for about half its length, then leaves it and extends southeasterly into the interior.*

Stieler (—). **Süd-** | **America** | in zwei Blättern, | gezeichnet von F. v. Stülpnagel. | Neue berichtige Auflage | **Gotha**: Justus Perthes | **1877**. | Stieler's Hand-Atlas N° 89. |

Size, 13 x 16 inches (northern sheet only).
Black; engraved and hand-colored boundaries.
Copy seen, Venezuelan Boundary Commission.
NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Streit (*dr.* F. W.) **Süd-** | **America** | entworfen und gezeichnet | von | F. W. Streit. | **Leipzig** | J. C. Hinrichs'sche Buchhandlung. | H. Leutemann sc. |

Size, 18½ x 15½ inches.
Black; engraved boundaries, hand colored.
[*In* Stein, (*dr.* C. G. D.). Neuer Atlas der ganzen Erde &c. 11th edition, fol. Leipzig, **1832**. no. 5.]
Copy seen, V. C., no. 29.
NOTE.—*Shows the Cruz Cano line.*

Streit (*dr.* F. W.) **Süd-** | **Amerika** | nach den besten Materialien u. nach Bemerkungen | des Prof. Ed. Poeppig | entworfen end gezeichnet | von | Dr. F. W. Streit. | Königl. Preuss. Major a. D. | **Leipzig** | J. C. Hinrichs'sche Buchhandlung | **1842**. | H. Leutemann sc. |

Size, 18½ x 15¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C. no. 3.
NOTE.—*Shows the Cruz Cano line.*

Strickland (*rev.* Joseph). Map of the **territory in dispute** | between | **Venezuela and British Guayana** | by the Rev. Joseph Strickland Litt. Doc. and Phil. Doc. | (**August 1896**). | Compiled from C. Alexander Harris' Map of the Territory in dispute | (1888)

and from T. Heyward's Gignilliats': Mapa de una parte de Venezuela y de la Guayana Britanica (1896). |

Size, 16 x 20 inches.

Colored; engraved boundaries.

[*In* Strickland (*rev.* J.) Documents and maps on the boundary question, etc. fol. Rome, 1896, front.]

Strickland (*rev.* Joseph). Sketch map of the **Capuchin missions** in the province **of Guayana about 1765** | Map. I. | Reproduced by Photo-lithography from the original in the Capuchin Archives in Rome |

Size, 10 x 13¼ inches.

Black; no boundaries.

[*In* Strickland (*rev.* J.) Documents and maps on the boundary question, etc. fol. Rome, 1896, at end.]

NOTE.—*Reproduced in accompanying atlas, pl. 72.*

Strickland (*rev.* Joseph). Sketch map of the **Capuchin missions** in the province of **Guayana about 1771** | Map. II. | Photo-lythographed from the original in the Capuchin Archives in Rome |

Size, 16 x 18¼ inches.

Black; no boundaries.

[*In* Strickland (*rev.* J.) Documents and maps on the boundary question, etc. fol. Rome, 1896, at end.]

NOTE.—*Reproduced in accompanying atlas, pl. 73.*

Strickland (*rev.* Joseph). Sketch map of the **Capuchin missions in Guayana about 1779** | Map. III. | Photo-lythographed from the original in the Capuchin Archives in Rome |

Size, 15¾ x 10½ inches.

Black; engraved boundaries.

[*In* Strickland (*rev.* J.) Documents and maps on the boundary question, etc. fol. Rome, 1896, at end.]

NOTE.—*Reproduced in accompanying atlas, pl. 74.*

Strickland (*rev.* Joseph). Sketch map of the **Capuchin missions** in the province of **Guayana about 1789** | Map. IV. | Reproduced in photo-lithography from the original in the Capuchin Archives in Rome |

Size, 13¼ x 17½ inches.

Black; no boundaries.

[*In* Strickland (*rev.* J.) Documents and maps on the boundary question, etc. fol. Rome, 1896, at end.]

NOTE.—*Reproduced in accompanying atlas, pl. 75.*

Surville (Luis de). Mapa | coro-grafico de la **Nueva Andalucia,** | provincias de Cumaná, y Guayana, vertientes del Orinoco, | su cierto origen, comunicación con el de las Amazonas, situación de la | Laguna Parime, y nuevas Poblaciónes. | Construido sobre las mejores observac^{s} y posterior^{s} noticias, | por D. Luis de Surville | Off^{l} seg^{do} del Archivo de la Secret^{a} de Estado, y del Despacho universal | de Yndias de orden de su Gefe el Exmo Sr D. Josef de Galvez. | Año de **1778.** | Andres Muela la grabò. [**Madrid.**]

Size, 21 x 24¾ inches.
Black; engraved boundary.
[*In* Caulin (friar Antonio). Historia coro-graphica, etc. fol. Madrid, 1779, p. 1.]
Copies seen, H. C. and V. C.

NOTE.—*Shows the Cruz Cano line. Part of this map is reproduced in the accompanying atlas, pl. 71.*

Tanner (Henry S.) **Brazil.** | Published by H. S. Tanner, **Philadelphia.** |

Size, 14½ x 11½ inches.
Colored; engraved boundaries, hand colored.
[*In* Tanner (H. S.) A new universal atlas, fol. Philadelphia, **1836**, pl. 33.]
Copy seen, L. C.

NOTE.—*Shows the Essequibo line.*

Tanner (Henry S.) **South** | **America** | with improvements to **1821,** | by H. S. Tanner. | Engraved & Published by H. S. Tanner **Philadelphia.** |

In two sheets; each 17¾ x 21½ inches. This measurement is of the northern half only.
Colored; engraved boundaries.
Copies seen, V. C. no. 72 and L. C.

NOTE.—*The L. C. copy has these words: Entered according to act of Congress the 8th day of June 1818 by Tanner, Vallance, Kearny & Co. of the state of Pennsylvania. Shows a modified form of the Cruz Cano line.*

Tanner (Henry S.) **South** | **America** | with improvements to **1823** | by H. S. Tanner. | Engraved & published by H. S. Tanner **Philadelphia.** | Entered according to Act of Congress, the 8th day of June **1818,** by Tanner, Vallance, Kearny & Co. of the State of Pennsylvania. |

Size, 35½ x 21 inches.
Colored; engraved boundary.
[*In* Tanner (H. S.) A new American atlas, etc. fol. Philadelphia, 1823, pl. 6.]
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line modified, i. e., a line from the Pomeroon mouth due south to the Essequibo.*

Tanner (Henry S.) **South | America** | with improvements to **1829** | by H. S. Tanner. | Engraved & Published by H. S. Tanner, **Philadelphia.** | Entered according to Act of Congress the 5th day of June, **1818**, by Tanner, Vallance, Kearney & Co. of the state of Pennsylvania. |

Size, 36 x 20¾ inches.
Colored; engraved boundaries.
Copy seen, V. C., x. 18.
Same with improvements to **1833** in L. C.
NOTE.—*Shows a modified form of the Cruz Cano line.*

Tanner (Henry S.) **South America.** | Published by H. S. Tanner, **Philadelphia.** | Entered according to the Act of Congress, in the year **1836**, by H. S. Tanner, in the Clerk's office of the District Court of the Eastern District of Pennsylvania. |

Size, 15¼ x 12 inches.
Colored; engraved boundary, hand colored.
[*In* Tanner (H. S.) A new universal atlas, etc. fol. Philadelphia, 1836, pl. 31.]
Copy seen, L. C.
NOTE.—*Shows the Arrowsmith-Schomburgk line.*

Tanner (Henry S.) **Venezuela, | New Grenada | & Equador.** | Published by H. S. Tanner **Philadelphia.** | J. Knight Sc. |

Size, 12 x 14¼ inches.
Colored; engraved boundary.
[*In* Tanner (H. S.) A new universal atlas, etc. fol. Philadelphia, **1836**, pl. 32.]
Copy seen, L. C.
NOTE.—*Shows the Cruz Cano line.*

Tardieu (Pierre). **Carte | d'Amerique,** | dressée par Pierre Tardieu | Publiée par Hocquart | Marchand d'Estampes, Rue St. Jacques, No. 64. | Successeur de Basset. | **Paris | 1833.** |

Size, 20¼ x 29 inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., no. 4.
NOTE.—*Shows the Cruz Cano line.*

Tébar (J. M.) *See* **Venezuela** (Republic of.)

Tegg (Thomas). **South America.** | Drawn by J. T. W. Assheton. | Engraved by J. Shury. | **London**, published by Thomas Tegg, Cheapside, January th2, **1826.** |

Size, 8 x 10¼ inches.
Black; engraved boundary.
Copy seen, L. C.

NOTE.—*Appears to be a bad copy of the Cruz Cano line.*

Thomas (—) and **Andrews** (—). Government | of **Caracas** | **with Guyana.** |

Size, 7⅞ x 9½ inches.
[*In* Thomas (—) and Andrews (—). New and Elegant General Atlas, etc. **Boston, 1812.**]
Copy seen, manuscript tracing in V. C. no. 70.

NOTE.—*Shows the Cruz Cano line.*

Thompson's Alcedo. *See* **Arrowsmith** (Aaron).

Thomson (John, Jr.) **Caraccas and Guiana.** Drawn and engraved for John Thomson Junr & co. **Edinburgh.**

Size, 19 x 23 inches.
Colored; engraved boundary.
[*In* Thomson (J.) A new general atlas, etc. fol. Edinburgh, for John Thomson. etc. **1817**, sheet 70.]
Copy seen, B. Pub.

NOTE.—*Shows the Cruz Cano line.*

Tirion (Isaak). Nieuwe Kaart | van | **America** | uitgegeven te Amsterdam | by Isaak Tirion. |

Size, 11 x 12½ inches.
Black; engraved boundary.
[*In* Hedendaagsche historie, of tegenwoordige staat van Amerika, etc. (anon.) 3 vols. 8°. **Amsterdam, 1766**, vol. I, p. 1.]
Copy seen, L. C.

NOTE.—*Boundary resembles Delisle line of 1722.*

Tirion (Isaak). Kaart van geheel | **Guajana** | **of de** | **Wilden-kust**, | en die der | Spaansche Westindiën, | op het Noord-end van Zuid-Amerika. | Te **Amsterdam** by Is. Tirion. |

Size, 13 x 16 inches.

Black; engraved boundary line.

[*In* Hedendaagsche historie, of tegenwoordige staat van Amerika, etc. (anon.) 3 vols. 8°, Amsterdam, **1767**, vol. 2, p. 648.]

Copies seen, L. C. and H. C.

NOTE.—*Has three insets or subsketches showing (a) "Kurassau" island, (b) Kurassau harbor and castle and (c) a "Kaart van de Volkplanting aan Demerary en Rio d' Essequebo." Shows the D'Anville boundary line.*

Tirion (Isaak). Kaart | van de onderkoningschappen | van | **Mexico** | **en** | **Nieuw Granada** | in de | Spaansche West-Indien, | te **Amsterdam** by Isaak Tirion | **MDCCLXV.** |

Size, 11¼ x 18¼ inches.

Colored; engraved boundaries.

Copy seen, L.

NOTE.—*Boundary copied from D'Anville 1748.*

Tirion (Isaak). Nieuwe **kaart** | van het | **westelykste deel der weereld,** | dienende tot aanwyzing van de | scheepstogten der Nederlanderen | naar | Westindie. | Volgens de **laatste ontdekkingen.** | Te **Amsterdam** by Is. Tirion. | **1754.** |

Size, 13½ x 14¼ inches.

Black; engraved boundary.

Colored; engraved boundaries.

Copy seen, L.

NOTE.—*Boundary copied from D'Anville, 1748.*

Tomlins (Frederick Guest) **South America.**

Size, 7½ x 10¾ inches.

Black; engraved boundary.

[*In* Tomlins (F. G.) A complete system of geography, etc., 8°. **Halifax, 1842.** p. 9. 6.]

Copy seen, L. C.

NOTE.—*Western boundary of Dutch Guiana, from place of name, seems to be the Essequibo river.*

Universal Magazine. A New and | accurate Map of | **South** | **America,** | Drawn from the latest & best | Observations. | Univ. Mag: J. **Hinton,** Newgate Street. | R. W. Seale sculp. |

Size, 13¾ x 10½ inches.

Colored; engraved boundaries.

[*In* Universal (The) Magazine. 8°. **London, J. Hinton, 1762,** October. no. 215, vol. 31, p. 169.]

Copy seen, L. C.

Valk (Gerard) and **Schenk** (Peter). **America** | **Septentrio** | **nalis. Amstelodami,** | penes | Gerardum Valk et Petrum Schenk. | [**No date.**]

Size, 18 x 21¼ inches.
Black; no boundaries.
Copy seen, L.

NOTE.—*Paria is near the Orinoco delta, and Nueva Andalusia is on both sides of the lower Orinoco. Names Guiana and Caribana do not appear.*

Valk (Gerard) and **Schenk** (Peter). **Venezuela** | cum parte australi | Novæ Andalusiæ. | Amstelodami, | Ioannes Ianssonius excudit. | **Amstelodami** vendibilis Gerardum Valk et Petrum Schenk. [**No date.**]

Size, 14½ x 19 inches.
Black; engraved boundary.
Copy seen, H. C. (marked $\frac{1615}{8}$).

NOTE.—*Has a boundary resembling Sanson's 1656 line, but bent around the title. Perhaps this is the origin of the Popple line.*

See also **Blaeuw** (William) and **Ottens** (R. and J.)

Vallardi (Antonio). Carta Grande dell' **America Meridionale,** ad uso delle scuole. Riveduta del Prof^re. E. Sargent. Antonio Vallardi, Editore, via S. Margherita 9, **Milano.** [**No date.**]

Copy seen, manuscript tracing in V. C., no. 67.

NOTE.—*Shows the Cruz Cano line.*

Vandermaelen (Ph.) Amer. Merid. **Partie de la Colombie.** N°. 3.

Size, 18¼ x 22 inches.
Black; engraved boundaries, hand colored.
[*In* Vandermaelen (P.) Atlas Universel, &c. 5e partie. Amér. Mérid. fol. **Bruxelles, 1827.** No. 3.]
Copy seen, V. C. no. 9.

NOTE.—*Shows the Cruz Cano line. This is part of a very large map of South America in 43 sheets.*

Vega (Garcillasso de la). **L'Amerique Meridionale.** | Tome I, Page 1, N°. 2. |

Size, 10 x 11½ inches.
Black; engraved boundaries.
[*In* Vega (G. de la). Histoire des guerres civiles des Espagnols, etc. Traduite de l'Espagnol * * par J. Baudoin. 16^, **Amsterdam, 1706,** vol. 1, p. 1, no. 2.]
Copy seen, L. C. and A. H. Byington, 709 E. Capitol St., Washington, D. C.

Venezuela (Republic of). **Mapa | de la | parte oriental | de Venezuela | para mostrar las invasiones** realizadas | **por el gobierno Britanico** | en el territorio de la Republica. | 1887 | Dibujado p. Jesus Muñoz Tébar, Ingeniero. | Publicado de orden del | ilustre Americano | General Guzman Blanco | Presidente de la Republica | Imp. i Lit. del Gob. Nacional-**Caracas.** |

Size, 18½ x 12¾ inches.

Colored.

[*In* Venezuela (Republic of). Latest correspondence on the question of limits of Guiana. fol. Caracas, printing-house and lithographic establishment of the national government, **1887**; at end.]

Copy seen at office of Venezuelan Boundary Commission.

Reproduced in UNITED STATES. Correspondence in relation to the boundary controversy between Great Britain and Venezuela, being a reprint of Senate Executive Document No. 226, Fiftieth Congress, First Session, and Senate Document No. 31, Fifty-fourth Congress, First Session. 8°, Washington, 1896, p. 100.

This is a photolithograph by the Norris Peters Co., Washington, D. C.

Venezuela (Republic of). **Carta corografica | de las regiones del | Esequibo, Cuyuni | y Amacuro | 1896** | Arreglada y dirijida por Manuel Cipriano Pérez, | Ingeniero á las órdénes del Ministerio de **Obras | Públicas, conforme á los datos del general Frau- | cisco Chartier y otros exploradores, compilados | por el Ministerio de Relaciones Interiores. | Edicion Oficial | Ordenada por el Ministerio de Relaciones Interiores | Dibujada por Jorge J. L. Lauge, Ingeniero** Civil. | Imprenta y Litografía del Gobierno Nacional. (**Caracas.**) |

Size, 20¾ x 27¾ inches.

Colored; shows 12 boundary lines.

Copy seen, in office of Venezuelan Boundary Commission.

[*In* Venezuela (Republic of). Memoria que presenta el ministro de relaciones interiores al Congreso de los Estados Unidos de Venezuela en 1896. fol. Caracas, 1896, p. —.]

Not seen.

Venezuela (Republic of). Mapa | demostrativo de las **diversas lineas de limites** | propuestas por | Venezuela e Inglaterra | y en el qual | se ve tambien la variacion hecha por esta | a la | caprichosa linea de Schomburgk | **1890** | Dibujado | por Juan Monserratte Ingeniero | Imp. y Lit. del Gob. Nacional-**Caracas.** |

Size, 25½ x 23¼ inches.

Colored; shows ten boundary lines.

Copy seen, office Venezuelan Boundary Commission.

Venezuela (Republic of). Mapa | demostrativo de las **diversas lineas de limites** | propuestas por | Venezuela e Inglaterra y en el cual | se ve tambien la varieacion hecha por esta | a la | caprichosa linea de Schomburgk | **1890** | Dibujado por Juan Monserratte | Rectificado en 1896.

Size 25 x 23 inches.

[*In* Venezuela (Republic of). Memoria que presenta el ministro de relaciones interiores al congreso de los Estados Unidas de Venezuela en 1896. fol. **Caracas**, 1896. p. —.]

In L. C.; *not seen.*

Venezuela (Republic of). Mapa | fisico y politico | de los E.E. U.U. de | **Venezuela** | Imp. y Lit. del Gob. Nacional—**Caracas** | **(1889)**.

Size, 21½ x 32¾ inches.

Colored; engraved boundaries.

[*In* Venezuela (Republic of). Department of "Fomento." Statistical annuary of the United States of Venezuela. Edition concluded on July 1st, 1889. fol. Caracas, 1889.]

Copy seen, Marcus Baker.

NOTE.—*Shows the Essequibo boundary. Contains two insets or subsketches and portrait of Simon Bolivar. Statistics are printed on the back. Copies of this map were distributed by Venezuela at the World's Columbian Exposition, Chicago, 1893.*

Visscher (Nicholas) **Insulæ** | **Americanæ** | in Oceano Septentrionali ac | regiones adiacentes, | a C. de May usque ad Lineam Æquinoctialem. | Per Nicolaum Visscher, | Cum Privilegio Ordinum Hollandiæ et Westfrisiæ.

Size, 18¼ x 22 inches.

Black; engraved boundaries, hand colored.

[*In* Wit (F. de). Nova orbis tabvla in lvcem edita, A. F. de Wit. fol. (no title page, date or place; probably **Amsterdam**, about **1700**?) no. 57.]

Copies seen, L. C. & H. C. (marked $\frac{4455}{10}$).

NOTE.—*The map of Hungary, No. 30, in this atlas bears date 1688; that of the East Indies 1662. Some maps in this atlas are by P. Lea & H. Moll, and some are for sale by J. Overton in London. Shows the Sanson line.*

Visscher (N.) *See* **Overton** (H.) and
Schenk (P.)

Vivien (L.) Carte | de | **l'Amérique** | **Méridionale** | par L. Vivien, Géographe | Gravée par Giraldon-Bovinet | **1825**. | **Paris** | Chez Menard et Desenne, Rue Git le Cœur, No. 8. |

Size, 15¾ x 11¾ inches.

Black; engraved boundaries, hand colored.

Copy seen, V. C., viii, 9.

NOTE.—*Shows the Cruz Cano line.*

Vuillemin (--). **Amérique | du Sud.** | Dressée par Vuillemin. | Lale direxit et scrip^{t}. | **(1830?)** |

Size, 10¼ x 7¼ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., no. 35.

NOTE.—*This map is evidently from some collection, as it bears upon its borders engraved numbers. These numbers are "9" and "33." Shows a modified form of the Cruz Cano line.*

Waddington (R.) A chart | of the **Coast of | Guayana,** | from the entrance of the | river Orinoco, | (in the Lat. 8° 30′ N. Long. 61° W. from London) | to the entrance of the | river Amazones, | by R. Waddington. |

Size, 18¼ x 24¼ inches.
Black; no boundaries.
[*In* The English Pilot. The fourth book, etc. fol. **London,** for J. Mount and T. Page **1764,** p. 51.]
Copy seen, L.

NOTE.—*Contains sub-sketches or insets of the Orinoco and Surinam rivers.*

Walker (*captain* Thomas). A chart of the coast of Guyana comprehending the colonies of **Berbice, Demerary & Essequebo,** by Capt. Thos. Walker, Ass^{t} Q^{r} Mast^{r} Genl 1st October, **1798. London,** published as the act directs. Dec. 1st, **1799,** for the proprietor by C. G. Playter; Lewisham, Kent, and R. Wilkinson, No. 58 Cornhill.

Size, 48¼ x 59 inches.
Black; detailed; large scale.
Copy seen, State Department. (†)

NOTE.—*Shows outlines of plantations and owners' names. Western limit of map is Morooca creek, where this note occurs: "The boundary between the Spanish Gorernment is a line running N. & S. from Cape Breme; which forms one of the mouths of the river Oronocco & is about 60 or 70 miles to the N. W. of Morocco."*

Walker (A.) *See* **Anonymous.**

Weimar Geographische Institut. Guyana | Weimar, im Verlage des geographischen Instituts **1828.** |

Size, 15¾ x 22½ inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C. no. 1.

NOTE.—*Shows the Cruz Cano line.*

Weimar Geographische Institut. Charte | von | dem **Hollaendischen und Franzoesischen** | **Guiana** | Nach einer handschriftlichen Charte von dem Capt. | **Simon Mentelle** und nach der Charte von Buache, | gezeichnet von I. B. Poirson. | **Weimar,** | Im Verlage des Geographischen Instituts. | **1804.** | Neuber sc. Weimar. |

Size, 11¾ x 16¼ inches.
Black; painted boundaries.
Copy seen, V. C. no. 36.
NOTE.—*Shows the Essequibo as a boundary line.*
See also **Poirson** (J. B.)

Weimar Geographische Institut. Charte von dem **Hollaendischen und Franzoesischen Guiana** nach einer handschriftlichen Charte von dem Capt. **Simon Mentelle** und nach der Charte von Buache, gezeichnet von I. B. Poirson. **Weimar,** Im Verlage des Geographischen Instituts, **1814.**

Size, 12 x 16½ inches.
Hand colored boundary.
Copy seen, H. C. (marked $\frac{16}{13}^{30}$).
NOTE.—*Shows the Essequibo as a boundary line.*

West India Atlas. *See* **Jefferys** (T.)

Whitely (Henry). South America. | **Part of** | **British Guiana** | Illustrating the explorations of | Henry Whitely | H. A. Milne, del. | E. Weller, lith. | Published for the Proceedings of the Royal Geographical Society, **1884.** |

Size, 8 x 7¼ inches.
Black; no boundaries.
Scale, about 17½ miles to one inch.
[*In* Royal Geographical Society Proceedings. 8°, **London**, 1884, August, vol. 6, no. 8, p. 488.]
Copies seen, L. C. and G. S.
NOTE.—*Shows the region about Mount Roraima.*

Whittle (James) and **Laurie** (Richard Holmes). *See* **Jefferys** (T.)

Wilkinson (Robert). A | New Map | of | **South America** | drawn from the latest | Discoveries | London, Published the 1st Jany **1794,** by Robt Wilkinson, Nº 58 Cornhill. | I. Puke sc. |

Size, 11¼ x 8 inches.
Colored; engraved boundary.

[*In* Wilkinson (Robert). A general atlas, etc. fol. London, 1800, pl. 48.]
Copies seen, L. C. and H. C.

NOTE.—*The engraved title page of this atlas bears the date 1800 while the Table of Contents is dated 1803. The copy of the map in Harvard College is not dated.*

Wilson (C.) *See* **Hobbs** (J. S.)

Winterbotham, (—.) *See* **Reid** (John.)

Wit (Frederic de). Novissima et Accuratissima | Totius | **Americæ** | **Descriptio.** | per | F. de Wit. | **Amstelodami.** | F. de Wit excudit. |

Size, 19 x 23 inches.
Black; engraved boundaries, hand colored.
[*In* De Wit's atlas; no date or title page, no. 56. Map 30 in this atlas, a map of Hungary, is dated 1688. Br. Museum catalogue assigns the date 1660.]
Copies seen, L. C.

NOTE.—*Guiana is an interior region enclosed—except on the west—by an engraved boundary line; Caribana is the coast region.*

Wit (Frederic de). Novissima et Accuratissima | Septentrionalis ac Meridionalis | **Americæ** | Descriptio, multis Locis recentibus aucta | et correcté divisa in Omnes Partes Hodiernas | per Fredericum de Witt **Amstelodami** | Cum Privilegio D. D. Ordinum Holl. Westfrisiæq. | F. de Wit excudit. [**No date.**]

Size, 19 x 23 inches.
Co ored; engraved boundaries.
Copy seen, G. S. (in collection labeled *American Maps*, vol. ii, no. 135).

Wit (Frederic de). Nova **Totius** | **Terrarrum** | **Orbis** | **tabula,** ex officina F. de Wit. | **Amstelodami.** | [**No date,** (?) **1670.**]

Size, 19 x 22¼ inches.
Illuminated map; engraved boundary.
Copy seen, G. S. (in collection labeled *American Maps*, vol. i, no. 1).

Wit (Frederic de). *See* **Visscher** (N.)

Wyld (James). Colombia Prima | or | **South America,** | In which it has been attempted to delineate the Extent of our Knowledge of that Continent. | Extracted Chiefly | From the Original Manuscript Maps of | His Excellency the late Chevalier Pinto; | Likewise from those of | João Joaquim da Rocha, João da Costa Ferreira; | El Padre Francisco Manuel Sobreviela &c. | And from the most Authentic Edited

Accounts of Those Countries. | Digested & Constructed | by | The late eminent and learned Geographer | Louis Stanislas D'Arcy de la Rochette. | London | Published by William Faden, | Geographer to His Majesty and to His Royal Highness the Prince of Wales, Jany. 1st 1820. |

Cooper scrip^{t}. et sculp^{t}.

Fourth edition, describing the New States. | Published by Ja^{s}. Wyld, (successor to W. Faden) Geographer to the King & to H. R. H. the Duke of York. | April 24th 1823. |

Size, 96 x 66 inches; in 8 sheets, dissected and folded in 8° case.
Black; engraved boundaries, hand colored.
Copy seen, L. C.

NOTE.—*Shows the Cruz Cano line. The following note, among others, is on this map:—Dutch Guyana has been corrected from a map of the Colony of Surinam | surveyed by order of Governor von Bottenberg M. S. and from the edited map of | Berbice, Demarary and Essequebo, surveyed by Bouchenroeder. | W. Faden.* |

Reprinted in 1888, as follows:

Wyld (James). Colombia Prima or **South America,** | In which it has been attempted to delineate the Extent of our Knowledge of that Continent | extracted chiefly | from the original manuscript maps of His Excellency the late Chevalier Pinto; | likewise from those of | João Joaquim da Rocha, João da Costa Ferreira; | El Padre Francisco Manuel Sobreviela &c. | and from the most authentic edited accounts of those countries | digested & constructed | by | The late eminent and learned Geographer | Louis Stanislas d'Arcy **de la Rochette.** | **London** | Published by William Faden, Geographer to His Majesty | and to His Royal Highness the Prince of Wales January 1st, **1820.** |

Cooper scrip^{t}. et sculp^{t}.

Fourth Edition | describing the new states | Published by | Jas. Wyld | (successor to W. Faden) | Geographer to the King & to H. R. H. | the Duk of York | April 24th **1823** | Imp. y Lit. del Gob. Nacional-Caracas (**1888**). |

Size, 23½ x 34 inches.
Colored; engraved boundaries.
Copy seen, V. C., x, 12.

NOTE.—*Shows the Cruz Cano line. The following notes, among others, are found on this map:*

Dutch Guyana has been corrected from a map of the Colony of Surinam surveyed

by order of Governor von Bottenberg M. S. and from the edited map of Berbice, Demarary and Essequebo, surveyed by Bouchenroeder.

Este mapa, que accompaña el libro titulado: Límites Británicos de Guayana por R. F. Seijas, es copia exacta de la parte correspondiente á la división de las Guayanas, y del mapa publicado por James Wyld (succesor de W. Faden) en abril de 1823. R. F. Seijas.

Wyld (James). Colombia | Prima | or | **South America** | Drawn from | the Large Map in Eight Sheets | by | Louis Stanislas d'Arcy **Delarochette.** | **London**: Published by James Wyld (successor to M^r^. Faden) | Geographer to His Majesty, | 5 Charing Cross, Jany. 1. **1829.** |

Size, 42 x 30 inches.
Black; engraved boundaries, hand colored.
Copy seen, V. C., x, 21.

NOTE.—*Shows the Cruz Cano line somewhat modified.*

Zürner (A. F.) **Americae** | tam **Septentrionalis** | quam **Meridionalis** | in | mappa geographica | delineatio | admentem novissimorum eorumq optimorum | geographorum emendata indicibus utilissimis | aucta et adusum Tyronum imprimis Geo- | graphicorum variis compendiosa Met- | hodi adminiculis accommodata. |

Opera | A. F. Zürneri, Reg. Maj. Pol. et El. Sax. Provinciarum finiumq: Comissarii | et geographi ut et Reg. Soc. Sci. B. M. |

Ex officina | Petri Schenkii, in | platea vulgo de Warmoes straat sub signo N. Visschers athlas. [**Amsterdam; no date, 1680** (?).]

Size, 19¾ x 22¾ inches.
Colored; engraved boundaries.
Copies seen, Bost. Pub. and L.

NOTE.—*Guiana is an interior region with engraved boundary; Caribana a coastwise region and Nova Andalusia lies west of the Orinoco.*

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